BULLETIN OF THE
SCHOOL OF EDUCATION
INDIANA UNIVERSITY

Vol. VI BLOOMINGTON, INDIANA No. 1

SEPTEMBER, 1929

Entered as second-class mail matter September 30, 1924, at the postoffice at Bloomington, Indiana, under the Act of August 24, 1912. Published six times a year from the University Office, Bloomington, Indiana.

Sixth Annual Conference
on
Elementary Supervision

Held at Indiana University
April 18, 1929

Bureau of Coöperative Research, Indiana University
School of Education
HENRY LESTER SMITH, Director

Price, 50 cents. For sale by the Indiana University Bookstore, Bloomington, Ind.

A limited number of copies of this bulletin will be distributed free of charge to citizens of Indiana.

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PROGRAM OF CONFERENCE ON ELEMENTARY SUPERVISION
April 18, 1929

All sessions will be held in Commerce Auditorium

Morning Session, Thursday, 9:30 a.m.

Clark Atkins, Principal of Elm Heights School, Bloomington, presiding.

9:30. Address of Welcome. President William Lowe Bryan, Indiana University.

9:45. A Study of the Relative Difficulty of the Reading Content of the Intermediate Grade History Texts Commonly Used in the State of Indiana. Lenna E. Smock, Graduate Student, Indiana University.

10:15. The Silent-Reading Score Card: A Self-Help Device. Rose M. Cox, Indiana State Normal School, Terre Haute.

10:45. Some Facts about Failures in the Muncie Schools, 1922-1929. Paul Addison, Principal of Wilson Junior High School, Muncie.

Afternoon Session, Thursday, 2:00 p.m.

Miss Charlotte Carter, Principal of School No. 51, Indianapolis, presiding.

2:00. Current Problems in Supervision. Dr. Alice Corbin Seis, President of Teachers College, Indianapolis.

2:30. Our New Knowledge of Personality. Dr. M. E. Haggerty, Dean of School of Education, University of Minnesota.

Evening Session, Thursday, 8:00 p.m.

H. M. Whisler, Director, Division of Teacher Training, State Department of Public Instruction, presiding.

The evening session will be devoted to a Round Table discussion on the general theme, "Some Fundamental Problems in Supervision." The program has been arranged by, and will be in charge of, Director Whisler of the State Department of Public Instruction.

8:00. Round Table Discussion:

1. What specific teaching abilities may supervisors justly expect beginning teachers to bring to their work as the result of a course in Student Teaching?
2. What specific abilities should we expect to be developed thru supervision during the first year of service?

Leader: Clem O. Thompson, Department of Education, Ball Teachers College, Muncie.

The Relative Difficulty of the Reading Content of the Intermediate Grade History Textbooks Commonly Used in the State of Indiana

LENNA E. SMOCK, Graduate Student, Indiana University

THE vocabulary burden of any textbook is one of the important factors to be taken into consideration when choosing a book for adoption into a school system. It seems that the matter of vocabulary has received some attention in the selection of readers for the lower grades, and some publishers have stressed the fact that the suitability and gradation of vocabulary are some of the chief merits of their publications. But one is impressed by the apparent lack of attention to the matter of vocabulary in the selection of books for the upper grades. Evidently it is assumed that writers of textbooks for the upper grades will intuitively, or otherwise, be guided aright in the choice of words to be employed in writing their books.

Some of the best writers on the teaching of history seem to neglect the matter of vocabulary in their schemes for evaluating textbooks. Franzen and Knight have formulated a list of five major criteria for the selection of textbooks. Each criterion is weighted. The total of all the weights is 1,000. Vocabulary is a subordinate item under comprehension and is given a weight of 75 points or 7.5 per cent of all the points.

Mr. Maxwell, in *The Selection of Textbooks*, pp. 15-22, indicates that the factors which determine adoption or rejection are often not the real merits or shortcomings of the book. He says that a common basis for the selection of textbooks embraces such factors as prestige of the author, prestige of the publisher, efficiency of sales force, general appearance of the book, wide use of the text, and cost of the book. It is needless to comment on the merits or demerits of such an unscientific procedure in the textbook selection, but suffice it to say that the probabilities are that too often some such bases are employed.

In the five or six textbook rating schemes examined, such ratings of vocabulary as do occur are not based upon any objective criteria, and to that extent the value of such ratings is limited.

The selection of material to be used in this study was not a difficult task by any means, unless one would consider it difficult to make a proper choice out of so many possibilities. The Department of Public Instruction of Indiana suggests fourteen different books for the teaching of history in the fourth grade, nine in the fifth grade, and eleven in the sixth grade. In the county schools, according to reports received from sixty-four superintendents of county schools thruout the state of

Indiana, eight different books in the fourth grade, eight in the fifth grade, and five in the sixth grade are used as basic textbooks. Seventy-six superintendents of city and consolidated rural schools reported several other different books being used. Five books that are most commonly used were selected for study. They are listed in the order of their most common use.

Books most commonly used in the fourth grade are as follows:

1. *Finders and Founders of the New World.* Woodburn and Moran. Longmans, Green and Company. Chicago.
2. *Stories of Early American History.* Gordy. Charles Scribner's Sons. Chicago.
3. *History Stories for Primary Grades.* Wayland. Macmillan Company. Chicago.
4. *Following Columbus.* Nida. Macmillan Company. Chicago.
5. *Founders of Our Country.* Coe. American Book Company. Cincinnati.

For the fifth grade:

1. *The Makers of America.* Woodburn and Moran. Longmans, Green and Company. Chicago.
2. *Stories of Later American History.* Gordy. Charles Scribner's Sons. Chicago.
3. *Famous Americans.* Uhrbrock and Owens. Bobbs-Merrill Company. Indianapolis.
4. *Leaders in Making America.* Gordy. Charles Scribner's Sons. Chicago.
5. *Following the Frontier.* Nida. Macmillan Company. Chicago.

For the sixth grade:

1. *An Introduction to American History.* Woodburn and Moran. Longmans, Green and Company. Chicago.
2. *American Beginnings in Europe.* Gordy. Charles Scribner's Sons. Chicago.
3. *Our Country's Beginnings.* Sherwood. Bobbs-Merrill Company. Indianapolis.
4. *Our Nation's Heritage.* Halleck and Frantz. American Book Company. Cincinnati.
5. *Our Ancestors in Europe.* Hall. Silver, Burdett and Company. Chicago.

The problem that is undertaken in this study is twofold. First, an attempt is made to compare each of the books by grade on the basis of general and technical vocabulary, and second an attempt is made to compare each of the books by grade on the basis of sentence difficulty.

The Teacher's Word Book, by E. L. Thorndike, was used as a standard for measuring the vocabulary. This book contains an alphabetical list of the 10,000 words which are found to occur most widely in a count of about 4,565,000 words from forty-one different sources such as literature for children; the Bible and English classics; elementary school textbooks; books about cooking, sewing, farming, the trades, and the like; the daily newspapers and correspondence.

A measure of the range and frequency of each word's occurrence is given by the credit-number following it. "Range" answers the question, "How many of these forty-one different sources used the word?" or "How widely is the word used?" "Frequency" answers the question, "How often is the word used?" The higher the credit-number of a word in the list of 10,000 words, the more commonly and more widely is that word used. In other words, the credit-number is an index of the value of a word. In this study the expression "index value" has the same meaning as credit-number. For example, the word "all" has an index value of 203 while the word "hero" has an index value of 32. This means that the word "all" is more commonly and more widely used than the word "hero." It is assumed that words which are more widely and more frequently used are easier than those which are less widely and frequently used. Therefore, the higher the credit-number or index value of a word, the easier is the word.

Since the books are to be compared by grade on the basis of general and technical vocabulary it is necessary to understand what is meant by the terms general and technical. The general vocabulary of a book is those words in the book which are found listed in the *Teacher's Word Book*. These words are further classified in this study as common and uncommon words. The uncommon words are those that are not found in the 3,000 most common words of the Thorndike list.

Mr. Gates used only the 2,500 most common words in the Thorndike list as one basis for the construction of a reading vocabulary list for the primary grades, thus indicating that he considers that number to be the upper vocabulary limit of the first three grades.

By the time the children have reached the intermediate grades we may arbitrarily assume that they have acquired a vocabulary consisting of the first 3,000 words of the Thorndike list. Then, in general, these first 3,000 words are fairly comprehensible to them and the rest of the words of the list may be considered as uncommon to them.

The technical vocabulary of a book is those words that are not found in the *Teacher's Word Book*. They are special words of a special subject. In this study they are classified as "zero value" words and are considered most difficult.

To get an average count of the vocabulary of each of the books, the random sampling method was used. Two samplings or two counts of approximately 1,000 words each were taken from each of the books. The words in the fifth line of a hundred or more pages were used for the first count, and those in the tenth line of the same pages were used for the second. The exact number of pages used in each count was determined by the number of pages and the average number of words per line in each of the books. Each count started with these lines on the first odd-numbered page. The pages from there on were so selected as to be evenly distributed thruout the book. Only the main bodies of the books were considered. Thus prefaces, appendices, and notes at the end of chapters were omitted. If the fifth or tenth line happened not to be a full line, the next full line below was used.

The words of each count were listed separately in alphabetical order. The index value of each word as given in the *Teacher's Word Book* was

recorded. The median and mean of the index value of all the words in each of the samplings was calculated separately. Why, separately, you may ask? We desired to know whether one count of approximately 1,000 words taken from a book is as representative of the vocabulary of that book as two or more such counts would be.

In order to test the reliability of such a method of sampling, four counts were taken from *Stories of Later American History*, by Gordy. The third and fourth counts were made on those pages opposite the ones on which the first and second counts were made, using the fifth and tenth lines on the page, as before.

The mean index values of the four samplings showed no significant difference. There was a difference of .1 per cent between the average number of different words, of uncommon words, and of zero value words of the first two counts and all such words of the second two counts. Hence it is altogether possible that one sampling of a 1,000-word unit, evenly distributed thruout a book, will give a fair average of the range and difficulty of the vocabulary.

The means of the index values for each of the samplings from each of the books were combined. This resulting mean index value for each of the books was considered a measure of the difficulty of the vocabulary. For example, if the mean index value for one book is 130 and for another book it is 140, we may say that the vocabulary of the first book is more difficult than that of the second. The lower the mean index value of the vocabulary, the more difficult is that vocabulary.

Next, the different words, the different uncommon words, the total uncommon words, the different zero value words, and the total zero value words were counted in each of the samplings from each of the books. The average number per sampling of all such words was estimated for each of the books.

What per cent of the vocabulary of a book is different words, different uncommon words, uncommon words, different zero value words, and zero value words?

Using some data for the Woodburn-Moran fourth grade book as an illustration, we may assume that for every count of 1,090.5 words there will be approximately 495.5 different words, 62 different uncommon words (those words not found in the 3,000 most common of the Thorndike list), a total of 67.5 uncommon words, 12.5 different zero value words, and a total of 13.5 zero value words. With these figures we may estimate that approximately 45.4 per cent of the words in the book are different, 5.7 per cent are different uncommon words, 6.2 per cent are uncommon, 1.15 per cent are different zero value words, and 1.23 per cent are zero value words.

These per cents were estimated for the averaged samplings from each of the books. The results of this phase of the study will be given in connection with the results of the second phase of this study. Therefore, let us go on.

It is assumed that the length of a sentence either hinders or aids comprehension. To try to determine whether this be true, a history reading test was made in two forms.

Five paragraphs were selected, one from each of the five sixth grade

textbooks. The average length of the sentences was 24.4 words. These paragraphs were used in Form I of the test as originally taken from the books. Four questions were given after each paragraph to test the comprehension. They were to be answered with one word whenever possible. These same paragraphs were rewritten using sentences of an average length of 11.1 words. Care was taken to use exactly the same vocabulary and not to change the order of the thoughts expressed. These paragraphs of shorter sentences, but expressing the same ideas as the originals, were used in Form II of the test. The same four questions that were given after each in Form I were given after the corresponding paragraphs in Form II.

The two forms of the test were given to 104 fifth grade children in the Bloomington schools. It was so arranged that every other pupil, 52 in all, took Form I and the other 52 took Form II. The group that took Form I had an average score of 63.3 for the Sangren-Woody Reading Test while the group that took Form II had an average score of 62.7 for the same test. The standard score for the fifth grade on this test is 58. Thus both groups ranked above the standard. However, the group taking Form I may be considered a little better group than the one taking Form II. All the children were given time to complete the test. The average time for completing Form I was 11.3 minutes while for Form II it was 12.8 minutes. The average score made on Form I was 13.7 and on Form II it was 14.6. The reliability coefficient of the tests as determined by correlation of chance halves is .82 for Form I and .75 for Form II. This is fairly high. We may assume that the tests will measure to some extent the thing they are supposed to measure, "Does the length of sentence affect comprehension?"

There was a difference of .9 in the average scores for each of the tests in favor of the shorter sentences. But the significance of this difference may be questioned. We can say for this one occasion that there was a difference, but on another occasion for the same group there might not have been any difference.

Further analysis of the results of the testing showed that it was evident that difficult vocabulary and construction of sentences affected the comprehension, causing wrong answers to be given to four questions by the majority of each group.

A revision of the test, lengthening the sentences of Form I, removing vocabulary difficulties, and simplifying the sentence construction of each form, is necessary. It is highly probable that the test would then show significant difference in results when administered under like conditions. This is a problem that should be solved.

If the length of sentence is one measure of sentence difficulty, then we desire to know the average length of the sentences in the reading content of the intermediate grade history textbooks.

Two random samplings of 100 sentences each were taken from each of the books. Beginning with the first even-numbered page, the third and sixth sentences on a hundred pages evenly distributed thruout a book were selected. The number of words in each sentence was counted. The median and mean length of sentence was found for each of the samplings from each of the books. The mean of one sampling in a book

and of a second sampling in the same did not show any significant difference. Thus a count of 100 sentences evenly distributed thruout a book will probably give a fair average of the length of the sentences in the book. The mean length of sentence of the two samplings for each of the books was combined.

Finally, in order to get a fair comparison, the books were ranked, the highest 5 points, next 4 points, and so on, 3, 2, and 1 point for the lowest by grade on the basis of the following items:

1. Mean index value of the vocabulary
2. Per cent of different words
3. Per cent of different uncommon words
4. Per cent of uncommon words
5. Per cent of different zero value words
6. Per cent of zero value words
7. Average length of the sentence

The highest possible number of points that may be given a book is 35. They, however, ranked thus:

FOURTH GRADE

History Stories for Primary Grades.	Wayland	33
Stories of Early American History.	Gordy	22
Finders and Founders of the New World.	Woodburn and Moran	19
Following Columbus.	Nida	18
Founders of Our Country.	Coe	13

FIFTH GRADE

Leaders in Making America.	Gordy	24
The Makers of America.	Woodburn and Moran	23
Later American History.	Gordy	21
Famous Americans.	Uhrbrock and Owens	20
Following the Frontier.	Nida	19

SIXTH GRADE

American Beginnings in Europe.	Gordy	30
Our Ancestors in Europe.	Hall	24
Our Country's Beginnings.	Sherwood	21
An Introduction to American History.	Woodburn and Moran	20
Our Nation's Heritage.	Halleck-Frantz	13

Of the fourth grade books, *History Stories for Primary Grades,* by Wayland, is the easiest in general. The book was written for use in the primary grades, but some schools have probably found it too difficult for those grades. *Stories of Early American History,* by Gordy, falls next in line; however, the average length of sentence in this book is longer than in any of the other four books for the fourth grade.

In general, all the fifth grade books are as difficult or more difficult than the sixth grade books. The mean index values of the vocabularies range from 127 to 131 and only one of the books has an index value above 130. The average length of the sentences in these fifth grade books is seventeen to twenty-one words. Of the five books, there

is not much difference between *The Makers of America*, by Woodburn and Moran, and *Leaders in Making America*, by Gordy. If there is any significant difference, it is in favor of the first, the vocabulary of which is less difficult and the average length of sentence shorter. On the whole the five fifth grade books show very little significant difference.

Of the sixth grade books, *American Beginnings in Europe*, by Gordy, is the easiest. *Our Ancestors in Europe*, by Hall, ranks next except for the average length of sentence, which places it lowest in the scale. There is not much difference between the Woodburn-Moran and Sherwood books in this grade.

In conclusion, there is very little gradation in vocabulary difficulty in the books from one grade to the next. The fifth grade books are as difficult or more difficult than those used in the sixth grade. There is decidedly little repetition of uncommon and difficult words in the reading matter of all the books. The question arises, should children be confronted with great numbers of uncommon and difficult words with few repetitions, or should fewer such words be presented with more repetition? Which will increase vocabulary most effectively? Surely purposeful repetition is one way of fixing an idea or concept so it will stick. It is true that the introduction of new words is necessary to increase vocabulary experience, but how many such words should a child be expected to learn from one grade to the next?

There is need of a standard vocabulary index value for each of these grades by which textbooks may be measured to determine the suitability of the vocabularies.

What should be the average length of sentences in the intermediate grades? Certainly not many of the sentences, if any, should be 50, 90, or 100 words long. Such happens to be the case in several of these books. It is probably safe to say that the average length of the sentences in the intermediate grade history textbooks should not be over 20 to 25 words.

Some such method of random sampling as that used in this study should give a fair average measure of the vocabularies and sentences of books to be used in the elementary grades. It is economical in expenditure of time and energy. A few hours spent in measuring the vocabulary and sentences of a book is as nothing compared with the length of time and the number of children that will be required to use the book. And, after all, our schools exist for children. We can't do too much toward improving learning conditions for them.

Score Cards: Self-Aids for Teachers of Silent Reading in the Intermediate Grades

ROSE MARIAN COX, Indiana State Teachers College, Terre Haute

As a teacher of reading methods in the Indiana State Teachers College at Terre Haute, for years I have felt the need of objective measures for silent reading lessons of the intermediate grades. Since no such measure existed, I set myself the task of making some. I wanted some means of measuring silent reading lessons such as the "Strayer-Englehardt Score Card" furnishes for measuring school buildings,—devices for evaluating reading lessons that would show the presence or absence of the necessary elements and the value of each of these elements. Accordingly, as I said, I went to work to make such devices. One tentative list after another was worked on and revised until finally score cards, setting forth the necessary elements, were sent out to educators who were interested in reading. Returns came in from 325 of these persons, and their pooled judgments are shown in the norms that you will find on the score cards which you hold in your hands (reproduced at the end of this paper). It would take hours to tell you in detail of the laborious work which was entailed in establishing these norms. But the development of the score cards is not what I want to talk to you about today. Nor shall I speak to you of all the various tests to which the cards were subjected. I shall confine myself to just one test of the score cards, and that is the one which I believe demonstrates that they are a valuable self-aid device to teachers.

In order to do this, I shall ask you to examine with me the score cards. On page 1 is set forth an explanation of expressions used on the cards. These may be, and doubtless are, perfectly familiar to you, but in order that they may be used by inexperienced teachers as well as experienced ones, these explanations were printed.

At the bottom of page 4 are given the judgments of the educators on the relative amount of time to be spent on each phase of reading. The table shows that they think that all the time devoted to reading should be distributed thus:

I. In the fourth grade:
   - *A.* 31 per cent of the time is to be given to work type silent reading
   - *B.* 26 per cent of the time is to be given to recreational type silent reading
   - *C.* 15 per cent of the time is to be given to work type oral reading
   - *D.* 16 per cent of the time is to be given to recreational type oral reading

E. 12 per cent of the time is to be given to drills to aid silent reading

II. In the fifth grade:

A. 37 per cent of the time is to be given to work type silent reading

B. 27 per cent of the time is to be given to recreational type silent reading

C. 12 per cent of the time is to be given to work type oral reading

D. 14 per cent of the time is to be given to recreational type oral reading

E. 10 per cent of the time is to be given to drills to aid silent reading

III. In the sixth grade:

A. 41 per cent of the time is to be given to work type silent reading

B. 29 per cent of the time is to be given to recreational type silent reading

C. 10 per cent of the time is to be given to work type oral reading

D. 12 per cent of the time is to be given to recreational type oral reading

E. 8 per cent of the time is to be given to drills to aid silent reading

These percentages show that the educators who made the evaluations think that, of all the time allotted to reading, the following percentages should be given to silent reading: 69 per cent in the fourth grade, 74 per cent in the fifth grade, and 78 per cent in the sixth grade. This shows an increased amount of time for silent reading from the fourth grade thru the sixth. Since from 69 per cent to 78 per cent of all the hours spent in teaching reading in the intermediate grades are to be given to teaching silent reading, doesn't it behoove the intermediate teacher to find out what educators consider are the essential elements in a silent reading lesson, and the value of each of these elements? A glance at page 3 will show you that here the card for recreational silent reading is given. But our time together is very short, and in these few minutes we cannot examine both score cards. However, if one is clear, the other can cause no trouble. I have planned for us to do two things together today: (1) get a general view of the work type silent reading score card; (2) listen to two lessons, one of which was given before the teacher studied the card, and the other, after she studied it. This lesson was among the many by which the cards were tested.

In the score card for work type silent reading lessons you will notice three main elements: "I. The teacher activity in preparing the lesson"; "II. The teaching act, or check-up"; and "III. The child activity." Of course "III. Child activity" is taking place during the whole lesson, from the moment it is begun until it is closed.

It is interesting to note that "II. The teaching act," to which

most teachers give all of their attention, is considered the least important of the three main elements (29 of the 100 points). Therefore the teacher must give particular attention to the other two.

As we study the score card, please do not get the notion that you are to try to bring out every one of the elements spoken of in every lesson. If in your past teaching you have taken none of the steps involved in preparing the lesson, it would be well for you to take only one at a time and work on that element until it seems natural to bring it out. Then study the next, and use it in your lessons until you can do it easily and naturally; and so on thru the various elements. Even after you understand the card, you may find the time or the subject will not permit all points to be brought out.

The outline shows that 30 of the 100 points are given to the preliminary work, 29 points to the actual check-up, and 41 points to the child activity. Let us look first at "I. The preliminary work." "A. The selection of the right material," to which 6 of the 30 points are allotted, is the first thing to be considered. In the hundreds of reading lessons which I have heard that were meant to be silent reading lessons but were not, I found few teachers knew what material should be read silently, and what orally. For silent reading lessons, the chief purpose of which is to get information thru studying, many varied types of material should be read. A few of these are the material in histories, geographies, arithmetics, science books, biographies, magazines, newspapers, advertisements, and the like. All of this material the child reads to himself to get the thought, and this is what silent reading is. He also reads silently to select, organize, and collect data to verify an opinion, to find out some desired thing in stories in his readers, and the like. It may seem strange to you that arithmetic problems are included in this material, but most thoughtful teachers have found that the trouble with the problems is that the child cannot read silently and find out what the problem means. It is the reading, and not the arithmetic that causes the trouble. This is true of other subjects, also. It may help us to name a few sorts of materials that one should not read silently, but orally. One should read, orally, short poems which depend upon the rhythm and sound for their beauty, plays, and interesting selections that furnish an excellent audience situation, so that the thought can be easily secured thru the ear,—e.g., jokes, short comic selections, and the like.

Now the teacher will find little difficulty in selecting the proper material if she will hold to the idea that she should select material from which the child is to get facts by reading to himself.

Having selected her material, she should seek to "secure the proper atmosphere" to which step 4 of the 30 points are allotted. She should connect the thing she is going to teach with some vital interest that the children have, so that they will be enthusiastic to read the new selection. An example comes to my mind. Not long ago, I heard a lesson on "Columbus." The teacher came before her class and said, "Read from page —— to page ——"; she gave no preparatory work. The result was a deadly uninteresting lesson, for which she blamed the children when it was really her own fault. It happened that this was

just a few days before the zeppelin made its initial flight. If she had asked who could tell something he had read about airships recently, the children would have been eager to talk. After two or three minutes, when she knew she had the interest of all, she would have been ready to take the next step, i.e., "Raise one or more motive questions," or, as we are used to saying, she was ready to make her assignment, oral or written, and tell the children just what definite thing they were to look for (motive) as they read. To illustrate, let us continue the preparation begun on the "Columbus" lesson. After having the children in a suitable interested state of mind, some such assignment as the following would have proved more satisfactory. "Lindbergh has crossed the ocean; the zeppelin is going to try to cross very soon. I thought you would be interested to read about the very first voyage that was ever made across the Atlantic. Open your books to page ——, and as you read, I want you to keep two things in mind: (1) the differences between the zeppelin voyage and the very first voyage made in a sail boat; and (2) the things you think should be improved in the zeppelin, before you and I would care to cross in an airship."

The children may or may not be interested in Columbus, but all of them are interested in Lindbergh and in all kinds of airships. Accordingly, this fact should have been made use of by the teacher.

It so happened that the Indianapolis *News* had had, the day before, a cartoon of a small, old-fashioned Spanish vessel rocking on the waves, with *Santa Maria* printed on its bow. Above the ship was a dirigible. Below the cartoon was printed, if I remember correctly, "Then and now." If the teacher had used this cartoon, and given her preparation by showing the picture and asking what it meant, she would have created an equally good "atmosphere," and the same assignment as given above could have been used. The thing the teacher should keep in mind is that everything taught should be linked closely to the children's interest and experience. The assignment has been given 5 of the 30 points given to the preparatory work.

The next point, a vital one, and yet one to which we can devote only a minute or two, is "Making clear what the children are to read for," i.e., are they to read just to get the meaning? Are they to see how fast they can read? Are they to organize the work? Are they to fix certain points in their memory? To put it in other words, just how is it to be done? The experts have allotted this point 5 of the 30 points which are given to the preparatory work. Since it has been proved fairly satisfactorily that usually fast readers get more thought from a selection than do slow ones, intermediate teachers will find it part of their job to give tests, standardized and teacher-made tests, to increase their speed. An excellent treatment of this subject will be found in C. R. Stone's *Silent and Oral Reading*, published by Houghton Mifflin Company. To the assignment given above, one sentence can be added which will fulfill the requirement for this lesson, e.g., "Let us see who can get every bit of the thought and finish reading first." Sometimes this element must be worked out much more in detail.

The following three points are practically self-explanatory. The first of these is, "Allowing for individual differences." As some of the

children read four times as fast as others in the same grade, some extra reading should be provided for the fastest readers. This material should always be something they want to read, or they will cease reading fast, as it only means a punishment of extra work if they get thru before the others do. Clippings, pictures, short magazine articles, and the like make excellent additional work for the good readers. Some sentence, like "When I was reading the other night, I found several interesting things I know you would like to hear about. So those who get thru first may read these articles and tell us about what they have read." This taking into consideration each child's individual ability, or, as it sometimes happens, his likes and dislikes, is "Making allowance for individual differences," and for this the experts have allowed 4 of the 30 points.

The second of the three self-explanatory elements is the clearing up of unfamiliar words or phrases which will keep the child from getting the thought and from reading fast. These difficulties must be cleared away before the children start to read. This "Anticipating difficulties" has been thought by the educators to be worth 3 points.

The last of these three elements—altho often these steps are not taken in this order—is "Setting up standards" (3 points). Some statement like the following might do. Teacher, "What is our motto about speed, Mary?" Child, "If you want to beat anyone, beat yourself." Teacher, "Yes, now on our cards each one of us puts down the number of words he reads per minute. Today we are going to see how many of us beat, i.e., beat our last record. Shall we?"

It might be well for us to gather together all this preparatory work for the lesson on Columbus, so that you teachers will see there is nothing difficult about it, when you know what to do. This preparation for the lesson is only suggestive. When you know your children, you can find a far better preparation to make.

Atmosphere: "Who has read something new and interesting about airships?" "John." (Child tells.) "Mary." (Child tells.) "Jane." (Child tells of zeppelin.) "I wonder if this picture means anything to you, Laura?" She interprets "Then and now," spoken of above.

Motive question: "We'll read about what this zeppelin does very soon now. I thought you'd like to read about the very first voyage that was ever made across the Atlantic. This picture shows the little vessel. Open your books to page —— and read the story. I want you to keep two things in mind as you read: (1) the differences between the voyage of the zeppelin and the very first voyage made by a sail boat across the Atlantic; and (2) the improvements you think the zeppelin will have to make before you and I want to cross in it."

Read for: "You have these two things clearly in mind, have you?" (If they have not, the teacher should either write the assignment on the board, or, even better, have some child restate it.) "I want you to read as fast as you can to get all the details of your story."

Individual differences: "On my desk are some interesting articles about airships. Those of you who finish first may come quietly and get them. Read the articles, and then you may share what you've read with the class."

Anticipating difficulties: "The name of the vessel is *Santa Maria*, which is the Spanish for 'Blessed Mary'. Now you'll find nothing else to bother you."

Standard: "I'd like for each one of you to try to beat the speed record you made last time. Wouldn't you like to? Read."

You see, fellow teachers, many of you have often taken these steps, but you have not known the value of each one. To work consciously on these elements one by one for a while, will mean that soon you can bring out all of them without difficulty.

We have given most of our time to the discussion of "I. Teacher activity in preliminary work," to which the educators have given 30 of the 100 points. The next main element is "II. Teaching the lesson—checking up" to see whether this silent reading was well done or not. I think you will have no difficulty in understanding any of these points. This "check-up" may be oral, in which case the outline on the score card can be followed in detail or not. It may be written. If so, some of the steps are not to be taken.

To follow slavishly will spoil your spontaneity, but now and then to take all the points will be excellent for the children.

"III. Child activity," to which these educators have given over two-fifths of the value of the lesson, is not isolated from I and II; but, as has been said, the child starts to react to the teacher's work from the moment she starts her preliminary work. If the children are interested, if they ask questions, and want to tell their own experiences, if everyone is taking part, then the teacher is "putting it over." She is getting the desired activity on the part of the children. It is evident, of course, that if the children are not interested, they won't work fast; they won't get much from the reading; the pupils will seem dull; and the teacher will blame everyone but herself. The most important thing to keep in mind is that, if you can connect the things the children are interested in outside of the school with the things they are learning in the school, their interest will be great, and their participation in the work certain. You will then be teaching silent reading well.

This short introduction to the score card will help you to understand the two lessons which I am now going to read to you. Since only two days elapsed between the two lessons, and, as no help except that gotten from the score cards was given the teacher, the difference between the lessons is attributed to the use of the cards.

LESSON I

Teacher: Experienced
Grade: 6A
Type: Work type. Lesson I *before* teacher studied score card
Material: *Essentials of Geography*, Brigham and McFarland, Second Book

I. Preliminary work
A. Material, work type Good
B. Atmosphere _____

C. Motive questions — Teacher: Read from p. 244, paragraph 345, to p. 249, paragraph 354.

D. What they read for ———

E. Individual differences ———

F. Anticipating difficulties ———

G. Standards set ———

II. Teaching act

A. Check-up

1. Motive questions ———
2. Big thoughts ———
3. Minute thoughts

Teacher: Class, close books. Up straight. What is a wave, Robert?
Child: A wave is caused by the wind.
Teacher: You didn't tell what a wave *is*.
Child: Oceans are large bodies of water, I think that's what starts waves.
Teacher: Catherine.
Child: I can't tell.
Child: The wind blowing water.
Child: It is a mass of water that raises into the air.
Teacher: Yes, that's right. What is the crest of a wave, Ruth? If you don't know, stand and tell the class.
Child: I don't know.
Child: The crest of a wave is one that comes up hard.
Child: A crest of a wave is a little wave.
Teacher: I don't think you have read very well. It is in italics in your book and stated very plainly.
Child: It is the top of a wave.
Teacher: Yes, that is what it is. What is the *trough* of a wave, Irene?
Child: A trough is—well—it's when the waves are high.
Child: It's sometimes when the waves come up out in the ocean.
Child: The trough of a wave is the space between two waves.
Teacher: How high may waves be?
Child: Waves may be 30 or 40 feet high or they may be just a few inches high.
Teacher: When a wave moves across the ocean, is the water moving with the wave, Charles?
Child: The water is barely moving. It moves, but not so much.
Teacher: What is moving?
Child: The waves.
Teacher: What do you mean by saying the waves move and the water does not?
Child: The wind moves it.
Teacher: The book explained that very well, that the wave *form*—wave *form*—passed over the water, but the water did not move much.

I'm afraid you didn't read carefully today. What is the surf?

Child: I think the surf is—is—where—I don't know.

Child: A wave coming into the land.

Child: It's the top of the water.

Child: It's where the boats ride during a storm.

Child: I don't know.

Teacher: All these statements are in italics and if you had read carefully you would have known the answers.

Child: It's the mouth, like a gulf.

Child: A reaction of waves upon the water.

Teacher: Where is the surf, Juanita?

Child: It's at the edge of the storms.

Teacher: It has nothing to do with storms.

Child: I don't know.

Child: It's closer to the shore, but the big waves are out farther.

Teacher: I think you have the notion. It is a narrow belt of waves near the shore. What are breakers?

Child: Breakers are waves that come to the shore and break.

Teacher: Where do we find beaches?

Child: On the edge of the ocean.

Teacher: Can anyone else tell us more definitely? Open your books and find it. Page 245, paragraph 347, half way down the page. Read it, Maxine.

Child: Beaches are found on the borders or at the head of a bay.

Teacher: What is undertow?

Child: I don't know.

Child: I don't know.

Child: I don't know.

Child: Currents under water.

Teacher: What causes these currents?

Child: I think that the undertow is under the water, the current goes over the water and that causes the undertow.

Teacher: See if you can state that better.

Child: When the water is thrown up on the land, it rushes back under the waves and that's the undertow.

Teacher: The writer gives most of this lesson to a discussion of another motion of the water. It is a big, world motion. What is it called?

Child: I don't know.

Child: Currents.

Teacher: What are currents?

Child: I don't know.

Child: I don't know.

Teacher: Did you notice the map that showed these currents? The currents are these big world motions of the water. How many large currents of water are there in the oceans?

Child: Two.

Child: Three.

Child: I don't know.

Teacher: I'm afraid you have not read carefully today. Open your books and read the lesson again. Give especial attention to "Ocean Currents" for that is the principal thought brought out in the lesson.
(Children read for rest of the period.)

4. Securing judgments ———
5. Association with knowledge ———
6. Summary ———
7. Assignment ———

B. Economy
1. In time Poor

III. Child activity
A. While studying Average
B. In recitation Average
C. Records and graphs ———

LESSON II

Teacher: Experienced

Grade: A

Type: Work type. Lesson II after studying the Cox Score Card

Material: Assignment on board. *Essentials of Geography,* Brigham and McFarland, Second Book

Selection: Ocean currents

1. Outline maps
   A. Name the places which are numbered.
   B. Draw the ocean currents on these maps and name them.
2. Written work
   A. If you see any relation between the directions of the ocean currents, write it in one sentence.
   B. All the ocean currents have a same general way of flowing. In one sentence tell how they each flow.
3. Supplementary reading
   A. Use the geographies on the front seat. Use index to locate material.
   B. Use Compton's and the World Book.

I. Preliminary work
A. Material, work type Good
B. Atmosphere

Teacher: Have you ever been out on the river?
Child: Yes—Yes!
Teacher: Did you ever hear your parents talk about getting out in the current?
Child: Right along the bank the current's not so strong, but just get out in the middle it sure goes.
Teacher: Then the current in the river is the place where the water flows—(pauses).
Child: Where the water flows faster.
Teacher: Then what could we say a current in the ocean is?
Child: A place where the water flows faster.

Teacher: Yes, that's just right. Have you ever seen a pond or lake in which it seemed that some water was flowing faster than the rest?
Child: Yes, out here at Hulman's Lake you can just kinda see where the creek goes through.
Teacher: Then you would say that there's a—
Child: A current there.
Teacher: That's just what happens in the ocean. There are currents there also. Robert, you were in Florida, did you ever hear anything about a current?
Child: Well, they always went out to the current from Miami for the best fishing.
Teacher: Good, then you really know about one of the most important ocean currents. As you study today, try to find the name of this current near Miami, Florida. I have given each of you an outline map of the world. 1. Name the places which are numbered. 2. Draw the ocean currents on these maps and name them. I shall have a drawing on the board showing the directions of the prevailing winds. Note: 1. Whether you can see any relation between the directions of the winds and the directions of the ocean currents. 2. That each current flows in a different direction, but they all have a same general way of flowing. See if you can see this sameness in the direction of each. Everyone will finish his map and think answers to the questions as he reads. Read very carefully in order that you may make your maps correctly. If anyone finishes before his study period is over, he will find these books on the front seat. The places are marked. Read the material and see if you can find something to tell the rest of us that we don't know. There are also some other maps here. Look them over; if they are better than ours, be ready to tell about them.

C. Motive

II. Teaching act
A. Check-up
4. *Judgments

A. Standards

B. Individual differences

(II. Teaching act)
(*A.* Check-up)
1. Motive questions

Teacher: What are we going to talk about today?
Child: Ocean currents.
Teacher: When she said, "ocean currents" just what picture did you have?
Child: Well, I thought of the whole ocean kinda quiet, but there was a kinda quicker current running through it.

2. Big thoughts

Teacher: How many big ocean currents did you find that there are?
Child: I counted five big ones if you count the one down there by Australia. There are two in the Atlantic and two in the Pacific.
Child: The one Robert told about down there at Florida is the Gulf Stream.
Teacher: Where does that water flow?

* Not all points in the score card were included, since they were not exemplified in the lesson.

	Child: It crosses the Atlantic and goes to England and then some of it goes north.
4. Judgments	Teacher: The climate is warm around the Gulf of Mexico and the Gulf Stream is warm, so what would you think it would do for the climate of England?
	Child: It would make it as hot as Mexico.
	Child: Well, maybe not that hot, because the Gulf Stream gets colder as it goes over, but I suppose it makes it some warmer, anyhow.
	Teacher: That's exactly right. Where does the water flow from England?
	Child: The current goes south and then goes back. It flows around, it flows in a sort of circle like.
(4. Judgments)	Teacher: That's good. You have suggested our written statements. Read your second statement, Kirk.
	Child: The ocean currents flow north and south of the equator in large circles or eddies.
	Teacher: Yes. Read yours, Ruth.
	Child: Mine is something like the book, "The ocean currents flow in complete circuits or eddies."
	Teacher: That isn't exactly like the book and I think it states it very well. I'm glad you used the word "circuits." Do you think of an old familiar word which is something like "circuits"? (No one saw it, so teacher supplied the word "circle.") You may draw one of the ocean currents on this outline map on the board and explain while you work.
	Child: Can I draw the one we have been talking about? This is the North Atlantic current. It goes west here at the equator, then north past Florida and along the eastern coast of North America.
(4. Judgments)	Teacher: It doesn't stay close to the eastern coast of North America, I wish it did. Then our coast would have what kind of a climate?
	Child: It would be hot—well, warmer.
	Teacher: Let's remember that, I want to ask you another question about that later. All right, Irene.
	Child: Then it goes up to England and Norway and some goes south to Spain and as far as the coast of Africa and then crosses the Atlantic again. It is going west.
	Teacher: Restate the world movements, Ed.
6. Summary	Child: (Gives summary, pointing on board to currents that had been drawn.)
	Teacher: Tomorrow we'll see the effect of some of these ocean currents on climate. That will be all.
B. Economy	Good
III. Child activity	
A. While studying	Excellent
B. In recitation	Excellent
C. Records and graphs	———

The reader will find that lesson I is about as poor as a lesson can be, while lesson II is above the average. The study of the score card called the teacher's attention to *what to do* and the importance of each point. She adapted herself easily, and the result was astonishing. She had no help from anyone; the knowledge of what to do, which she gained from the score card, solved her problem for her. Objection may be raised that we are merely training this teacher and the ones who gave the previous lessons, to follow the card, and naturally they would do the suggested things. But these cards present the essential points of a reading lesson as judged by over three hundred persons whose judgments are supposed to have considerable weight, and we conclude their judgments as set forth on the cards have helped the teacher to help herself.

We thought that these and dozens of similar lessons given *before* and *after* the cards were studied showed conclusively that the score cards are of positive value to the teacher as a self-aid device. But the best test will be made when *you* study the cards and teach your silent reading. If they help *you* to bring out more elements in a silent reading lesson, if they help you to give the greatest stress to the most important elements, if you find the children more interested in their silent reading than formerly, then they have certainly proved a self-aid device to you teachers.

THE COX SCORE CARDS: SELF AIDS FOR TEACHERS OF SILENT READING LESSONS IN THE INTERMEDIATE GRADES

These Norms have been established from estimates made by 325 Professors in Schools of Education, Superintendents, Supervisors, and well trained, experienced teachers in reading.

PURPOSES

1. To help the intermediate teacher to check up on and evaluate her **own** silent reading lessons. She can see what the opinion of experts is regarding the relative importance of the various points; she can see whether or not she is giving the proper emphasis; she can work towards a greater variety of lessons as suggested below on this page; and she can find her own weaknesses and strive to overcome them.

2. To help the City and County Superintendent, Principal, Supervisor, and Critic Teacher to check up on and evaluate the strong and weak points in a teacher's silent reading lesson. Talking this over with the teacher will help her to overcome the weaknesses pointed out.

[NOTE. These cards should not be used for **all** silent reading lessons, lest the work become formal and mechanical.]

INSTRUCTIONS FOR USING THE FOLLOWING SCORE CARDS

The scorer must have as his standard the best silent reading lesson that he has ever seen or read about. This will determine what his judgment of **superior, poor**, etc., is. Every reading lesson has these three points: **I. Preparation** for the teaching act; **II.** The teaching act **itself**; and **III. The result** of this teaching act, or the child activity. (**III** takes place simultaneously with **I** and **II.**) If desired, only these three general points may be evaluated. They may be evaluated as superior, poor, etc., by placing a check mark in the appropriate column opposite **I, II,** and **III**; or they may be given a numerical value by placing a number just below the number printed in the **first** column marked **Norms.** If any point measures up to the standard set by the scorer, then he writes below it the same number as the one printed; if the teacher falls below the standard set, the scorer gives him a correspondingly lower grade. If a more detailed rating is desired, the same procedure as that indicated above may be given to items **A, B, C**, etc., and from the evaluations given these points, a more accurate evaluation is determined for **I, II,** and **III.** The sub points may be graded by checking in one of the columns marked superior, poor, etc., or by giving percentages which are to be placed to the **right** of the **second** column marked **Norms.** The author suggests as the best procedure the checking of the sub points, and then from these checks, the evaluation in numbers of the three main points.

[NOTE. No **one** silent reading lesson will reveal **every one** of the points given on these score cards. The standard to be desired is the use of all, except those that the nature and assignment of the lesson precludes.]

EXPLANATION OF EXPRESSIONS USED IN THE FOLLOWING SCORE CARDS

Expressions used on both pages 2 and 3.

By **atmosphere** is meant having the student get into the proper frame of mind for the particular kind of lesson which is to be taught, so that his first impression will be a pleasurable and vivid one; e. g., if the child is to have a silent reading lesson to cultivate his sense of humor, the teacher may ask who has heard a good joke lately. After two or three jokes have been told, the teacher can lead up to her lesson as the children are in the right frame of mind. If desired, the teacher may use a short bit of the selection they are to read. After having aroused their interest, she can give her assignment. By **motive question** we mean a specific assignment which makes clear to the child the particular thing for which he is to read the selection. In one lesson it may be the main causes of the American Revolution; in another, the chief occupations in Indiana; in another, the most interesting moment in the story; in another, the funniest incident, etc. By **individual differences** is meant the differences found in **mental** ability, experience, and the likes and dislikes of the children. These should be taken into account in assigning work. So far as it is possible, material should be selected which will give enjoyment. By **follow-up work** is meant the work given to strengthen the fact or pleasure gotten from this lesson. This should always be, in so far as it is possible, something which the child likes to do, even for a work type lesson. The follow-up work may be illustrative work, dramatization, reading more and similar selections by the same author, or applying things learned to another subject, as language work. This lesson may be a **continuation** of today's lesson, but it is more often to strengthen today's points in a way the child **likes. Check-up work** is finding out exactly how much work has been done and how well it has been done. By **setting up a standard** is meant some such statement made to the **fourth** grade students as, "Boys and girls, let us show the fifth grade students that we can read as fast and get all the points as well as they can. Shall we?"

Expressions used on page 2.

Work type silent reading lessons are those silent reading lessons the chief purpose of which is to get **information** through **studying.** Under this class of lessons and scored by this card are: (1) silent reading material in arithmetic, history, geography, science, nature study, biography, and hygiene, in which the child works to get facts; (2) silent reading in connection with all class-room problems and activities: e. g., reading to find out how to make a moving picture from illustrations made by themselves; (3) silent reading to find in a story, either informational or literary, the setting: time, place, and characters: what will follow; and how it ends; (4) silent reading to give judgment on some question suggested but not answered in the book; (5) silent reading to verify an opinion or to form the basis for a judgment; e. g., Submarines should be outlawed by all nations; (6) silent reading of data: to collect, to select and evaluate, to organize, to summarize, to locate details, and to draw conclusions. (I. A.) Proper material for **work type** reading lessons is found in text books and supplementary books on geography, history, arithmetic, science, nature study, biography, and hygiene; also magazines, encyclopedias, and newspapers. (Most short poems are **not** of this type, as they should be taught orally. "Horatius" would be all right.) By **retention** is meant the memorizing of one or more of the points, so that they can be easily recalled.

(Continued on page 4)

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THE COX SCORE CARD FOR EVALUATING SILENT READING LESSONS IN THE INTERMEDIATE GRADES *WORK TYPE	Superior	Above Average	AVERAGE	Below Average	Poor	NORMS	
I. TEACHER ACTIVITY IN **PRELIMINARY WORK** SHOWN BY -						30	
*A.—Selecting proper **work type** material							6.
1. For whole class, groups, or individuals in the class							
*B.—Securing **proper atmosphere** through							4.
1. Pictures, discussion, and information							
2. Showing relics or the live thing: flower, bird, or animal							
*C.—Raising one or more **motive questions** by							5.
1. Oral assignment							
2. Written assignment suited to time of preparation							
a. Factual questions or b. judgment questions							
D.—Making clear whether the children are to **read for**							5.
1. Comprehension alone							
2. Comprehension and speed—determined by kind of material							
*3. Organization and retention of thought							
*E.—Allowing for **individual differences** in							4.
1. Amount assigned and likes and dislikes							
2. Difficulty of material and type of problem to be solved							
F.—**Anticipating difficulties** in meaning of words, phrases, and sentences							3.
*G.—Setting up **standards** to work for							3.
II. THE TEACHING ACT (after the child has read silently) - - - -						29	
*A.—Procedure: (a **check-up** on the silent reading)							19.
1. Getting the answer to the **motive question** or questions							
2. Getting **large** and **important** thoughts							
3. Getting more **minute** thoughts, and organizing all thoughts							
4. Securing **judgments** as to how and why							
5. Associating with child's knowledge and **interests**							
6. **Summary**							
7. Making next **assignment** of							
*a. **Follow-up** work of one or more kinds							
(1) Reproduction							
(2) Additional report							
(3) Illustrative representation							
(4) Evidences of remedying poor work and other diagnosis							
b. **Continuation** of subject in today's lesson							
c. **New** material on today's subject or an entirely different one							
B.—**Economy** in							10.
1. Time and effort							
a. In handling material, questioning, and making decisions							
2. Details brought out							
3. Stimulating children to appropriate activity							
III. CHILD ACTIVITY SHOWN - - - - - - - - - - - - - -						41	
A.—While **studying**							10.
1. Manifestations of good reading habits							
a. No lip movement nor finger pointing, etc.							
b. Posture and holding book correctly							
c. Self direction, concentration on lesson, and completing assignment							
B.—In **recitation**							26.
1. Interest shown by							
a. Questions asked and by active part taken by all in recitation							
b. Recalling knowledge gained from previous reading							
c. Asking to read more on same subject							
2. Problems grasped—shown by stating it clearly, vaguely, or not at all							
3. Problems solved—shown by stating clearly, vaguely, or not at all							
4. Errors checked by reference to material studied							
5. Recognition of the relation existing between this and other subjects							
6. Application made to child's own life and interests							
C.—In recording or **graphing** gains or losses in ability							5.
* See Pages 1 and 4 for explanation of terms used.						100	100

THE COX SCORE CARD FOR EVALUATING SILENT READING LESSONS IN THE INTERMEDIATE GRADES *RECREATIONAL TYPE	Superior	Above Average	AVERAGE	Below Average	Poor	NORMS	
I. TEACHER ACTIVITY IN **PRELIMINARY WORK** SHOWN BY						28	
*A.—Selecting proper **recreational** type material							8
1. For whole class, groups, or individuals in the class							
*B.—Securing **proper atmosphere** through							6
1. Pictures, music, discussion, and information							
2. Showing relic or the live thing: flower, bird, or animal							
*C.—Raising one or more **motive questions** to find source of enjoyment							5
1. Oral or written assignment							
*D.—Allowing for **individual differences** in							5
1. Amount assigned and in likes and dislikes							
2. Difficulty of material							
*E.—Setting up **standards** to work for							4
II. THE TEACHING ACT (after the child has read silently)						26	
*A.—Procedure: (a **check-up** after the child has read silently)							16
1. Getting the answer to the **motive question**							
2. Finding the source of pleasure							
3. Reading aloud passages that produce this pleasure							
4. Suggesting or reading similar selections							
5. Recalling similar experiences of children							
6. Making next assignment suited to time available							
*a. **Follow-up** work of one or more kinds							
(1) Dramatization							
(2) Illustration							
(3) Reproduction							
(4) More of similar reading							
b. **Continuation** of the subject in today's lesson							
c. **New** material on today's subject or an entirely different one							
B.—**Economy** in							10
1. Time and effort							
a. In handling material, questioning, and making decisions							
2. Details brought out							
3. Stimulating children to appropriate activity							
III. CHILD ACTIVITY						46	
A.—While **studying**							11
1. Manifestations of good reading habits							
a. No lip movement nor finger pointing, etc.							
b. Posture and holding book correctly							
c. Self direction, concentration on lesson, and completing assignment							
B.—In **recitation**							35
1. In getting the motive question or questions							
2. In making clear the source of the pleasure by appreciating							
a. Story, characters, or beauty in nature							
b. Humor							
c. Some high ideal or virtue							
d. Social relationships							
3. In manifesting a **special interest** in							
a. Author's works							
b. Some topic, magazine, newspaper, or book of reference							
4. In displaying the pleasure he has had by							
a. Facial expression							
b. Active part taken by all in recitation							
c. Expressed desire to read similar selections							
d. Expressed desire to reproduce the thought in							
(1) Oral report or written work							
(2) Illustrative representation							
(3) Dramatization							
* See Pages 1 and 4 for explanation of terms used.						100	100

Expressions used on page 3.

Recreational silent reading lessons are those silent reading lessons the chief purpose of which is to get **enjoyment.** The material may or may not be the same for all the class. Under this class of lessons and scored by this card are: (1) silent reading of longer poems, orations, and literary prose which is too long to be taught orally (short poems should be taught orally in lessons of appreciation); (2) silent reading of good biographies; (3) silent reading of good adventure stories; (4) silent reading of travel experiences; (5) silent reading of good easy fiction; (6) silent reading of good dramas; (7) silent reading of topics in magazines and newspapers; (8) silent reading of humorous selections; (9) riddles and jokes; (10) silent reading of any topic selected by the child because of some special liking. (I. A.) Proper material for these **recreational** silent reading lessons is any good material that will rest and give pleasure to the child. As the whole aim is to give enjoyment, much freedom should be allowed the child in the selection of material. By **social relationship** is meant the interdependence of each man on every one else in his community; e. g., The banker needs the lawyer, and both need the miner and shoeman.

SCORE CARD FOR DRILLS TO AID SILENT READING WORK IN THE INTERMEDIATE GRADES

Suggestions of **types** of drills outside of the reading class to help in **silent reading.**

I. Speed drills
II. Increasing vocabularies by study of
  A. Word formation
    1. Roots
    2. Prefixes
    3. Suffixes
  B. Synonyms
  C. Antonyms
III. Collecting data
  A. Evaluating importance of data
  B. Sifting and organizing data
IV. Outlining
  A. Main points
  B. Subordinate points
V. Making and interpreting
  A. Graphs
  B. Diagrams
VI. Use of
  A. Indexes
  B. Reference books
  C. Dictionary
  D. Diacritical marks
  E. Glossaries
  F. Table of contents

Instructions for scoring drills. Use either of the procedures suggested on page one.

Procedure of Teacher	Superior	Above Average	AVERAGE	Below Average	Poor	NORMS	
I. Impression						25	
A. Motivated drill							13
B. Secured interest in drill							12
II. Strengthening impression by						35	
A. Sufficient examples							6
B. Sufficient repetition							7
C. Varying devices							6
D. Spending only a short time on drill							4
E. Bringing in all the children							6
F. Making work full of "pep"							6
III. Applying the work drilled on						24	
IV. Testing or checking-up on the drill work						16	
						100	100

The norms placed in the respective columns suggest the relative amount of time to be given the following types of lessons in class:	NORMS Grade IV	Grade V	Grade VI
Work type silent reading lessons	31	37	41
Recreational type silent reading lessons	26	27	29
Work type oral reading lessons	15	12	10
Recreational type oral reading lessons	16	14	12
Drills	12	10	8
	100%	100%	100%

Some Facts about Non-Promotion and Subject Failures in the Muncie City Schools

PAUL ADDISON, Principal of Wilson Junior High School, Muncie

THIS study of failures in the Muncie city schools for the years 1922-28 inclusive was begun in Education 706, conducted by Dr. Velorus Martz, of Indiana University, in an Extension class at Muncie in 1928.

The committee working on the report included Charles E. Pittenger, principal of Blaine junior high school; Glen D. Brown, business director of Muncie city schools; and the speaker. Our study was carried on mainly to find out a few facts about subject failures and non-promotions in the Muncie schools. We made a very general report on April 13, 1928, before the Extension class on these three major topics:

1. Non-promotions by grades by boys and girls.
2. Failures by subjects by boys and girls.
3. Groups of subjects that caused non-promotion.

So many questions were raised concerning the report that we felt a more detailed study should be made of certain factors involving our findings. With the kind consent of Dr. Martz and other members of the committee, the speaker was granted permission to write his master's thesis on this subject. With this idea in mind the speaker has brought to you a partial report of the study with a few of the factors partially analyzed for your consideration.

The report will take up in order the following topics:

1. Non-promotions by grades by boys and girls for six years, 1922-28.
2. Failures by subjects by boys and girls for the same period.
3. Groups of subjects that caused non-promotion.

The method of procedure was as follows:

1. Registers for twelve semesters were studied in detail for the various Muncie schools.
2. Data were tabulated into charts, tables, and graphs.
3. Certain existing conditions are being studied in an attempt to find solutions to those conditions.
4. Our study covered 26,472 cases involving boys, 25,943 cases involving girls, or 52,415 cases which would warrant the drawing of certain conclusions.
5. Assuming that each pupil received an average of eight subject grades, the report includes a study of 419,320 subject grades.

The non-promotion graph shows the following facts:

1. Approximately 54 per cent of non-promotions are in the first three grades.

2. In the fourth and fifth grades non-promotions were not as high as the speaker anticipated they would be. It has been felt that the teaching perhaps was not as good there as in the primary or departmental work, but facts, so far as non-promotions are concerned, do not prove this.

3. As yet the speaker has not found any real reason for the high per cent of non-promotions of boys in the sixth grade.

4. Low per cent of non-promotions in the eighth grade may be due to the fact that at this time almost all of these pupils were entering the high school.

A study has been made of attendance for the same period, and this graph is placed on the non-promotion grade graph for comparison. Attendance per cents have been changed to absence per cents in order that the graph will read the same. These per cents were computed from term reports handed in by teachers at the close of each semester.

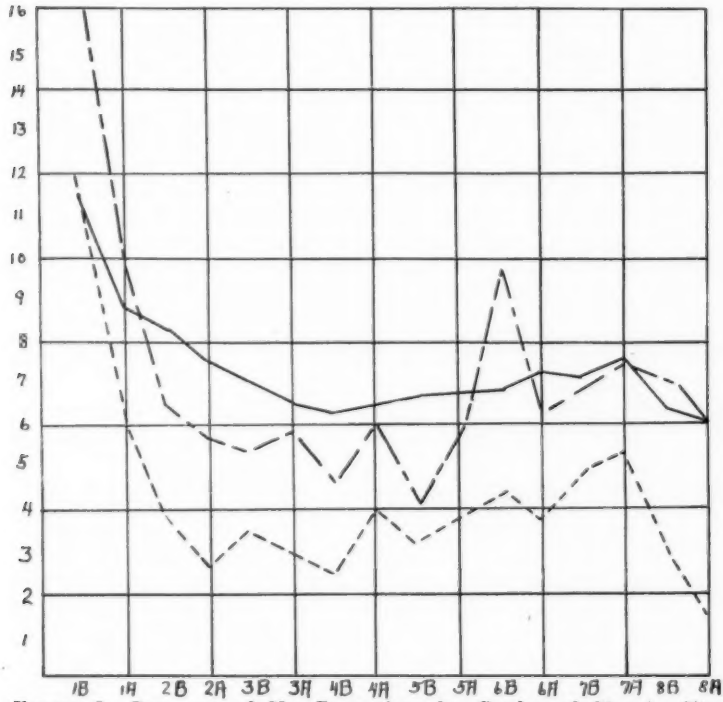

FIGURE I.—Per cent of Non-Promotions by Grades of Muncie City Schools for Six Years, 1922-28 (inclusive)

Boys — - — - —

Girls - - - - - -

Per Cent of Absence for Six Years, 1922-28 ————

It would seem that in a few cases there might be some correlation. However, the question has been raised: Is non-promotion due to poor attendance or is failure to do the work the cause of poor attendance? The speaker realizes that the state attendance law is not enforced very extensively in the first grade. If it was, would our attendance there be improved? From casual observation it is obvious that the rôle of contagious diseases is a factor in attendance, more so in the primary grades than upper grades. Consideration was also given to the fact that the primary teacher receives her pupils chronologically and must divide them mentally, which necessarily means a large non-promotion in accordance with a traditional course of study. Facts in the Muncie schools show also that kindergarten pupils are not causing as large non-promotion per cents as the ones not attending kindergartens.

The second part of this report shows the subject failures for the years 1922-28 (inclusive). The subjects are listed according to frequency of failures and by sex, with the boys' failures on the left and girls' on the right. These data were obtained by checking the registers for term subject failures regardless of promotions or non-promotions. Over 400,000 grades were checked, which gives the speaker an opportunity to form general conclusions and, if sufficient evidence is disclosed, to formulate specific conclusions.

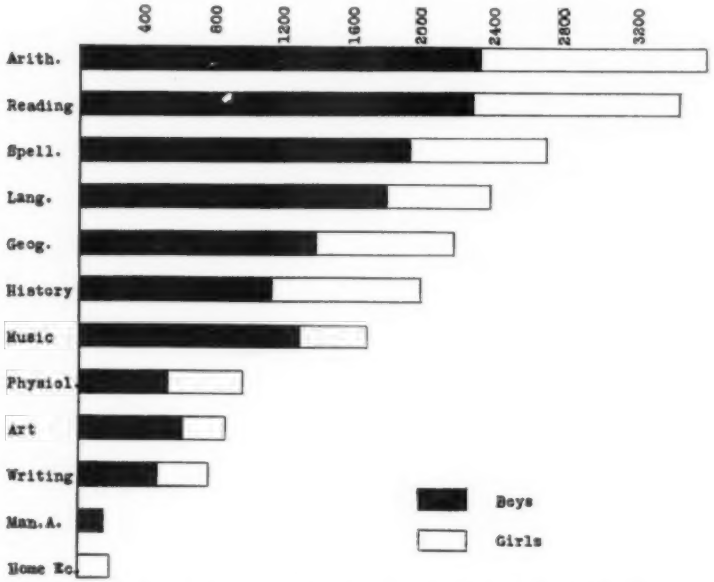

FIGURE II.—Subject Failures in Muncie Schools (First to Eighth) for 1922-1928 (Inclusive)

As you note, our so-called fundamental subjects were marked for every grade while some others, such as physiology, manual arts, and home economics, were not included until the higher grades. The thing that is appalling to the speaker is the large number of failures of boys over girls. This is especially true in history where you might expect boys to do better work, as we have felt that they were more interested than girls.

So far three factors have been studied in an attempt to determine the reasons for this in the Muncie schools.

Intelligence quotients for 7B, 8A, 9B, and 9A grades have been tabulated by sex as follows:

Grade	Boys	Girls
7B	98.9	99.2
8A	99.8	101.2
9B	98.7	100.3
9A	102.3	102.1

The complete report will include all of the grades. From the above facts it would seem to the speaker that there is no correlation between the failure statistics and intelligence.

A questionnaire was placed in the hands of 634 boys in grades 5, 6, 7, 8, and 9 to find out their reaction on the matter, and the following replies were received. Each boy was given an opportunity to give three reasons why he was not promoted or made lower grades than girls. It is evident that these reasons could be grouped into smaller classifications but they are listed as boys give them.

1. Boys do not take as much interest, do not care, thinking of vacations, careless, lazy, out late, and smoking 295
2. Too much fun, waste time, do not study, slow to learn 236
3. Interested in sports, other things on mind, into more trouble ... 178
4. Girls have more time, more ambition, work harder 149
5. Do not like home work, teachers, or subjects, teachers too smart 114
6. Attendance, made to attend school, just go until they are sixteen 86
7. Teachers do not give boys as much consideration 51
8. Called "sissy" if they make high grades 19

A questionnaire was placed in the hands of several teachers with the following tabulations:

1. Loafing and wasting time 29
2. Girls more interested and have more ability 26
3. Outside interests and work 23
4. Course of study not adapted to boys 21
5. Absence and failure to make up work 19
6. Reached age when they do not care for study 19
7. Lack of respect and indifference to benefits of education 17
8. Lack of understanding on part of teachers 16
9. Stronger play spirit 15
10. More independent, want to do as they please 15
11. No preparation 14
12. Home environment, too much freedom 13

13. Interested in athletics..... 12
14. Do not care..... 12
15. Develop more slowly than girls..... 10
16. More women teachers than men teachers..... 9
17. Clash of personalities..... 9
18. School work uninteresting..... 8

If any conclusions are to be drawn from these statistics, the speaker would say that:

1. Boys do not react.
2. Clash of personalities would compel boys to make higher achievement to make same grade.
3. We need more men teachers in our upper grades.
4. Boys are not as docile as girls.

The third part of this report deals with groups of subjects that cause non-promotions. This study was made by grades for each school.

In the 1B grade, 81 per cent of non-promotions were due to a failure in reading alone, or 93 per cent in reading or combinations with reading. Of non-promotions, 7 per cent were due to failures other than reading. It would seem from facts that a failure in reading in 1B would be sufficient cause for non-promotion in that grade.

In the 1A grade, 83 per cent of non-promotions were due to reading failures or combinations, particularly reading and spelling.

In the 2A grade, reading failures coupled with spelling or language are causing 91 per cent of the non-promotions.

In the 3B and 3A grades, failure in two prepared subjects such as reading and arithmetic are causing non-promotions. Generally speaking, a failure in reading or arithmetic will cause failure in these grades.

From 4B to 8A grades the combinations were so varied that no definite conclusions could be drawn. The study showed that in some schools pupils were not promoted because of one subject failure and in other schools were promoted with 50 per cent of their subjects as failures. The committee of 1928 recommended that some standard be fixed for promotions, as pupils in some schools were not given the same opportunities as in other schools. In the 7A grade, for instance, the study shows pupils non-promoted because of music failures or art failures. The speaker feels that this is not a good justification for non-promotion.

In conclusion, the speaker wishes to say that this report is very incomplete; that he does not believe in so many non-promotions; that the high per cent of non-promotions in primary grades needs more study; that teachers need to study the problem of boys and, if necessary, adopt a curriculum better suited to them; that boys must be studied as boys, and girls as girls; and that same activities result in different responses.

Current Problems in Supervision

(Mrs.) Alice Corbin Seis, President of Teachers College, Indianapolis

The science of education has removed the swaddling clothes with which supervisors have been burdened for the last two decades. The period of infancy for supervisors has passed, yet they still face an indeterminate period of years of watchful waiting, working, and experimenting before a philosophy and science of supervision having reliability, validity, and objectivity can be established.

Before discussing in detail some of the important contributions to supervision which have come during the past few years, it may be well to pause a few moments to consider briefly the present service which the new tools of scientific education can render. It may be well, also, to face the limitations of such service.

It must be satisfying to supervisors to be able to free themselves from the sentimental framework on which they were forced to build the supervisory practice of the last two decades. Many of us have recollections of controlling ideas like the following:[1] "In relation to children and youth, the supervisor is as a pioneer going into the great wilderness of primeval forests to make there a home of civilization"; or, "In relation to the schools, the supervisor is as a sea captain of the mediaeval time upon a chartless sea." We may well rejoice that the primeval forests are largely cut and that some charts and compasses are at present available to guide us on our supervisory journeys.

We rejoice, also, that supervisors have been graduated from the kind of faith and dependency on children's interests resulting from the G. Stanley Hall brand of psychology, if indeed we may term Dr. Hall's investigations psychology at all. Such kind of faith had no reference to the quality or the relative significance of children's interests viewed in the light of permanent human values. Today we still believe that child interests are of major importance in education, but we recognize that unless children's expressed interests are in some line proved by social analysis to be desirable, or may be easily directed toward some activity that is desirable, such interests should be eliminated. Thankful indeed are we to be graduated from the errors attendant upon a platitudinous philosophy.

The first means of growth came from studying the implications of early surveys. However, the much-talked-of Springfield survey of 1914 merely gave a picture of facts about observed teaching. There was no effort to evaluate the facts. These surveys, presenting as they did a picture of actual school conditions, at least took us out of the condition of *laissez-faire* in which we rested on such faith regarding children's

[1] L. D. Coffman, "The Control of Educational Progress through School Supervision," N.E.A. *Proceedings*, 1917. Vol. IV, p. 187.

original nature as Wordsworth expressed in the "trailing clouds of glory" theory.

Dr. Brueckner, in an article in the 1929 *Yearbook* entitled *Scientific Method in Supervision*, states that practically no survey made since the Springfield survey included quantitative data concerning classroom practice until the New York statewide survey of the entire rural schools of that state was made. In connection with this survey, a plan of gathering objective data was devised which made it possible to compare on a large scale the reports of various types of schools. These surveys mark the beginning of scientific education, in that objective data were secured which gave a picture of actual school conditions and in that a great many techniques were devised for use in measuring objectively the work in schoolrooms thruout the country. Thru the practice of making surveys and of taking objective records, supervisors had access to a multitudinous amount of facts regarding practices in schools.

Specialists dug and probed for new facts. While boring and probing into prevalent practices, they blasted out old theories. The results were many destructive findings regarding current practice in education. New knowledge came faster than it could be digested. It seemed we were living in a runaway world. One thing apparent was that specialization had become a dominant life principle. Public schools were full of specialists of subject-matter and of scientific techniques. Some of these specialists knew more and more about their specialty and less and less about life itself. Many were too narrowly trained to keep their perspectives, to see life and education steadily and to see them whole.

In the midst of this confusion, the supervisor stood then, and stands now, at the crossroads. *To be or not to be this or that* was the question then as now. Should she begin with the more conventional method of examining race experience in order to get guiding principles and objectives of education which have proved their worth, or should she, thru the use of scientific procedures, strive to discover the activities and traits more desirable to emphasize in educating children, then arrange around these activities and traits the methods and principles selected from the accumulation of race experiences? Some supervisors start at one point, others at another. However, there are certain things any supervisor must keep in mind no matter which is her point of attack. It may not be amiss today to restate certain points of view commonly accepted by progressive supervisors.

1. She must have a vision of the school as a conscious agency for social betterment; her part is to promote continuous growth in children in accordance with the best ends of society.
2. She it is who must see to it that life itself goes on within schoolroom walls.
3. She must keep her vision large with the bigness of life.
4. Curriculum aims must be made human as she adjusts them to children's natures and to their needs.
5. She it is who must provide for individual differences in such a way that the daily program will insure for every child at every step of his development the highest degree of success that his ability makes possible.

6. She it is who must provide for children's growth in personal and group responsibility, in initiative, in coöperation, in leadership, and in the practice of good judgment.

7. She it is who must see to it that the school life of children provides not only an adaptation to life in the world outside, but a means of integrating experience into coherent personalities which take on naturally the objectives of education—health, worthy home membership, worthy use of leisure, citizenship, a command of the fundamental processes, a foundation for later vocational efficiency.

8. More than this, she must provide for the growth of teachers. Scientific supervision converts the supervisor into a production manager. Her production has to do not with material wealth but with the *continuous growth of children thru teacher-guidance.*

The new contributions in scientific supervision have to do with guidance, with objective measurement and data of the more intangible factors necessary for guidance, and with evaluation of results. The two outstanding books of the year for the supervisor are the 1929 *Yearbook* of the National Conference of Supervisors and Directors of Instruction, entitled *Scientific Method in Supervision,* and the *Commonwealth Teacher-Training Study,* by W. W. Charters and Douglas Waples.

The *Commonwealth Teacher-Training Study* has to do with the teacher as she works on the job, and has for its purpose the changing of the curricula of teacher-training institutions in the light of evaluated findings. It throws light on the teacher as a professional practitioner working under modern conditions of practice. From an objective analysis of what teachers *actually do,* it attempts to determine what teachers *should know* to perform duties effectively.

The 1929 *Yearbook, Scientific Method in Supervision,* has for its purpose to make available to teachers descriptions of various techniques that have been devised by means of which the supervisor may analyze her work in an objective, efficient way.

In the midst of these new techniques and procedures the supervisor may well be confused as she stands at the crossways. How easy to become a mere statistician expertly recording, judging, and evaluating checklists, when she should become a master surgeon diagnosing human needs in order to promote better growth. True, she needs to educate herself in the uses of scientific procedures in order to train groups of teachers to investigate on a large scale. She must be familiar with the instruments of scientific measurement and must have applied them to the particular problem that is being studied in order to recognize the difficulties and questions which may arise during the investigation. She must be enough of a scientist to know the limitations of such ways of securing data in order that she may interpret the findings. But above all, she must recognize the limitations of scientific devices which have to do with *descriptions of facts as they are rather than as they should be.*

The true science of supervision must grow out of an adequate philosophy of life. We may well liken modern scientific procedures to the televox, a mechanical system of electric supervision which is the marvel

of our age. Yet even as this great mechanical invention, introduced at first as a system of electric supervisory control, failed to challenge the attention of man to its services and had to be invested with a cardboard likeness of man, so will our use of supervisory instruments of precision fail to produce adequate growth changes in human beings until *they too are humanized.* One of the great dangers in a supervisory televox of facts and fact-finding devices is that there will always be a tendency on the part of narrow specialists to use such instruments as ends in themselves rather than as means toward a bigger end.

Let us be modern Pandoras and look inside the box of our supervisory televox of scientific procedures, examining a few of the parts. Chapter II, of *Scientific Method in Supervision*, reports on techniques measuring both pupils and teachers. It points out how meager are the data contributed by educational tests when compared with the whole range of desirable educational outcomes. These tests measure largely the amount of factual knowledge children have acquired or such skills as speed of writing, speed of computation, rate of reading.

Dr. Brueckner in this chapter calls our attention to the attempt in the past few years to develop instruments for measuring such apparently intangible objectives of education as character traits, conduct, attitudes, and ideals. Much rich information may be obtained thru these latter fairly successful instruments—information that is suppressed or ignored by many standard tests. The bibliography given in the footnotes of the 1929 *Yearbook* on supervision gives an adequate sampling of different types of investigations. There is time here to mention only a few.

May and Hartshorne[2] have shown us how to measure such single character traits as honesty, and its adverse side deceit, thru testing children's tendency to cheat in school situations and in such social situations as in playing games. Among other findings this study points out the specificity of conduct codes which, for example, lead children to cheat as a matter of fact in one classroom while in the very next class those same children may not cheat at all.

Another investigation has to do with behaviour problems. Haggerty[3] measured eight hundred school children who passed thru the child guidance clinic in Minneapolis in 1923-24. He points out the tendency for behaviour problems to increase at both ends of the scale of intelligence and suggests that this may be due in part to the less satisfactory adaptation of the school to the two extremes of ability,—the highly intelligent, and the group consisting of dull, border-line, and feeble-minded children. Over-age and retardation, low or high intelligence and behaviour problems go together.

There are many techniques by which supervisors and teachers may check classroom conditions. Morrison has devised a technique of measuring attention. The Minneapolis adaptation of the Morrison plan is presented in the *Yearbook* on supervision. Modern psychology stresses

[2] May, Mark A., and Hartshorne, Hugh, *Studies in Deceit.* Macmillan Company, 1928.

[3] Haggerty, M. E., "The Incidence of Undesirable Behaviour in Public School Children." *Journal of Educational Research*, September, 1925.

the learning situation. Child learning is the most important thing to be observed in classrooms. Motivation and attention are important to learning. Supervisors and teachers should welcome a technique by which attention may be measured. Morrison's "group index" in attention is more valuable than the usual ways of measuring attention. The observer, sitting in the front of the room so that he can see the faces of all of the pupils, notes the number of pupils out of attention at the beginning of each minute by running his eye up one row and down another. The minute-by-minute scoring on a specially prepared mimeographed sheet is not difficult. The results are fairly reliable.

In Minneapolis two observers visited three different classes to obtain attention scores, working independently. At the conclusion of three trials, they found that the maximum difference in similar class scores was three points, while the minimum was one point. Whether or not supervisors place full credence in the reliability of attention scores, the attention chart should be helpful to point out to teachers variations in attention, and to locate pupils with bad habits of study who require individual remedial treatment. In the primary grades these attention charts may be made to reveal to teachers and supervisors valuable information regarding the number of cases of lip movements in reading, of counting in arithmetic, of faulty positions in writing, and other difficulties of a physical nature. It is interesting to see how clearly the individual or class profile charts picture conditions. No supervisor can afford not to use this technique.

Suggestive also to supervisors is the technique to measure the number and quality of questions[4] as an index of the efficiency of a teacher. A teacher asking several hundred questions in the course of a day is exhibiting teacher dominance, besides keeping her pupils in a condition of strained attention.

Other techniques measure the extent and quality of pupil participations.[5]

Since children learn thru doing, every teacher should be alert daily to the extent to which she plans for pupil participation.

It seems best to mention one other line of investigation, that of measuring the attitudes of school children. One technique here will suffice. W. L. Connor, in "A New Method of Rating Teachers,"[6] lists evidences of "concrete acts" by which supervisors can evaluate the work of the teacher according to seven different standards. He rates on (1) morale, (2) emotional reaction, (3) self-control, (4) thinking, (5) knowledge and skill, (6) deportment, and (7) initiative of pupils. We may get some idea of his rating scale by studying the section on the initiative of pupils in socially significant situations. The child is observed on some such basis as the following:

1. Asks questions worth while for the whole group to answer.
2. Proposes problems essential to the progress of the group in the subject at hand.

[4] Stevens, Romiett, "The Question as a Measure of Efficiency in Instruction." Teachers College, *Contributions to Education*, No. 48.

[5] Horne, Ernest, "Distribution of Opportunity for Participation among the Various Pupils in Classroom Recitations." Teachers College, *Contributions to Education*, No. 67.

[6] *Journal of Educational Research*, May, 1920.

3. Examines material in advance so as to be of service to the teacher and the class in laying out the work for the following day or week; i.e., assists actively in making the assignment.

4. Volunteers information, and makes helpful suggestions in the course of the recitation.

5. Is not idle when assigned work is finished, but finds useful work to do. If time permitted, other techniques investigating the activities of pupils and teachers could be mentioned.

We are not face to face with the problem of evaluating such data as may be obtained from these new techniques of measurement. Seated in our supervisory chairs, facing our control charts for separate rooms and separate buildings, how can we use such findings? It is easy enough to record the facts and to list these under each teacher's name on the room control chart. It is but another step to carry over the score on a larger control chart for each building. As diagnosticians marshalling facts into an orderly perspective, we can prepare supervisory reports to teachers and to principals suggesting remedial procedures for children who have poor attention, who lack initiative, and who need special test and drill materials in arithmetic. The facts themselves are fairly objective. They are reliable in that the ears and eyes of observers can be trained to make fairly accurate observations. The difficulty is in their validity. The check-lists do not always measure what they are supposed to measure. Observers seldom agree as to the value of what they observe, hence we have no common standard or basis of knowing the relative value of the trait or the activity being studied.

We have to admit that we still have no solution to a long list of questions. Dr. Brueckner, discussing this problem in the *Yearbook*, courageously faces the facts and admits there are no solutions at present to such questions as "What types of activity are desirable?" "Which are undesirable?" "What changes in method will bring about an increase in the number and quality of desirable activities?" "What qualities in the pupils produce the results that are secured?" "What factors condition their responses?" and "Is the curriculum properly adjusted to their abilities and interests?" These questions must still be answered by a consensus of opinion of teachers and supervisors in the light of the objectives they have set up.

Some educators feel that we grow most when face to face with dilemmas and problems. The dilemmas are here. The reports and investigations quoted show that. Shall we meet the challenge? It promises to be a glorious and exciting adventure; perhaps a crusade. Have we, as supervisors, the moral and physical stamina to make the fight?

The first vital problem we must solve is to face the consequences of our past mistakes. Do we know what they are?

Chapter XVIII of the last supervisor's *Yearbook* deals with "Teacher Evaluation of Supervisory Procedure." We have here a picture of how groups of elementary and high school teachers regard supervisory practice in their school systems. We have also a comparison of what *is* in supervisory practice with what teachers feel *should be*.

A sample check-list of the various kinds of duties performed by

supervisors was prepared in consultation with supervisors, principals, and school specialists and by listing the supervisory duties mentioned in one hundred articles and books on supervision. These activities are listed under five headings: (1) fact-finding activities and devices such as classroom visitation, tests and measurements, teachers' reports; (2) fact-presentation activities and devices such as teachers' meetings for announcements, bulletins, etc.; (3) activities and devices for stimulating growth and improvement such as teachers' meetings, demonstration teaching, intervisitation, exhibits, lectures and reports, the encouragement of professional reading, conference with individual teachers, experimentation, and helping teachers to evaluate their own work; (4) activities and devices in the training of teachers, and improvement of instruction such as maintaining office hours when teachers can get help, coöperative study by groups of teachers, individual studies by teachers and institutional training; (5) procedures for evaluating the results of supervision.

In this form the inventory was submitted to twenty-five Minneapolis and St. Paul principals and to twenty-five superintendents of small school systems in Minnesota. Wherever possible, the inventory lists were distributed to teachers in teachers' meetings and filled out after explanations had been given. The forms were then collected by the investigator and checked and tabulated. Teachers checked each activity as "much used," "used some," "used very little," or "not used."

Since the desire on the part of investigators was to compare existing practice in the use of the supervisory activities with the judgments of teachers regarding the value of such activities, the inventory containing exactly the same items was prepared in another form with four columns headed "of great value," "of some value," "of little or no value," and "undesirable." The same check-list was also filled out by teachers in ten Minnesota school systems in cities ranging in size from 10,000 to 20,000 population. It was thought that the replies of the teachers in the ten school systems examined might not agree with general practices in cities of the same size thruout the country. However, 150 elementary school principals in 120 cities of 10,000 to 20,000 population, scattered thru the country, described their supervisory practices on the same check-list used by the teachers. The results suggest that the conditions obtained in the Minnesota cities are not greatly different from those generally found in cities of this size.

We now know what 377 elementary school teachers and 334 high school teachers think of the way supervisors function on the job. We know also what 56 specialists in school administration and supervision think. We know the truth about what 25 principals and superintendents think of supervisors. Before changing practice in accordance with what people think, we should realize that what they think has value, but it is not necessarily the whole truth. It should prove helpful, however, to consider these opinions.

The tabulation shows us that supervisors seldom announce their visits, and also that they tend to make short visits. Yet we know that unless short visits are on consecutive days and are used for collecting

data objectively and systematically, such visits are of little real value in helping or in judging teachers.

As to how frequently tests are used by supervisors, we note that 37 per cent of teachers feel tests should be more used. Where used, diagnostic tests seem more commonly applied than mental tests. The chief product in mental tests this last year has been in the development of character, attitudes, emotions, and similar non-intellectual traits. These tests promise to yield important insight into the characteristics of the individual if supervisors will but try them out. Measurement experts are making a vigorous attempt to measure abilities analytically instead of trying to find a general blanket measure.

The most economical and time-saving way in which a supervisor may secure facts is to ask teachers to report what they do. It seems that reports are little used by supervisors. Yet, if carefully devised mimeographed check-lists were handed in weekly by teachers to the supervisor's office, she could place results on her wall chart, diagnose the needs of rooms and of buildings, then send special remedial prescriptions on small cards to individual teachers and to principals. It is apparent, is it not, that supervisors do not make sufficient use of fact-finding devices and activities?

In the next section of the inventory, the section dealing with activities and devices for stimulating growth and improvement in teachers, we see at once that supervisors make slight use of demonstration teaching, intervisitation, lectures and reports, conferences, experimentations, and self-evaluation by teachers. Recent educational literature is full of suggestions for classroom experimentation and appeals are made at educational meetings to supervisors to train their teachers in the elements of simple classroom research. The educational world needs the teacher as a research worker; and the teacher herself will be benefited by such work. So many studies need to be made on learning in relation to teaching method. Much of the experimentation now conducted is ineffective because it is conducted under artificial conditions and restrictions. Teachers working with normal school or college psychologists can contribute largely to the mass of new facts needed to improve learning.

Our other shortcomings are shown as follows: We have many new techniques in self-rating, yet these devices and check-lists seem little used. In spite of the importance attached to conferences following visitation in the literature of supervision, such conferences are reported as "much used" by only 20 per cent of elementary school teachers.

Under the heading, "Activities and devices in the training of teachers and improvement of instruction," we notice that only 21 per cent of teachers report that their supervisors maintain office hours when teachers can get help, yet 55 per cent of teachers consider this practice of great value. Supervisors seem to do little in coöperative studies with groups of teachers in planning the curriculum, in re-editing texts, in planning new equipment, or in devising drill materials, altho teachers consider these things of great value. It seems therefore that supervisors are not doing what teachers would have them do. To quote Ernest A. Melby, who made the study, "One way to describe the situation might

be to say that much is done to find out how the teacher is teaching, but little is done to help her improve."

Section V, in this teachers' evaluation report, has to do with evaluating the results of supervision. This problem seems to be little understood by teachers. Yet techniques exist by which both a superintendent's and a supervisor's accomplishment may be measured in terms of child growth. It is not fair to apply objective measurements to teachers, yet to refuse to be responsible for the results. Are we willing to be so measured?

The *Commonwealth Teacher-Training Study* gives us a wealth of material with which to criticize present practice in reconstructing teacher-product.

Supervisors should be critical of their trade. As production managers they have responsibilities to meet if they are to meet the challenge to produce growth changes in children. They must view their profession creatively. Their child product is dependent upon teacher-product; teacher-product is dependent upon the creative vision and administrative genius of heads of teacher-training institutions. College professors are already awake to the need of studying the new job analysis of teaching presented in the *Commonwealth Teacher-Training Study*. The list of teachers' traits is perhaps less valid than the lists of teachers' activities. Both are suggestive.

How many supervisors use this study?

It is essential, is it not, before planning any supervisory program to know what duties are performed by various types of teachers? It is also important to have a record of the teachers' attitudes toward their duties. Such attitudes are expressed by teachers' judgments regarding the relative difficulty and importance of the duties and the need for assistance in performing duties. The *Commonwealth Teacher-Training Study* shows these results in summary tables. Furthermore, it is helpful to compare the duties actually performed by teachers of the given grade levels with the duties rated as most important by representative groups of authorities as found in the tables. We should note, also, how pupil activities necessary for growth may be connected with the teaching activities needed to guide pupils. Such help is very necessary to beginning teachers. The *Commonwealth Teacher-Training Study* offers here a meeting point from which supervisors and teacher-training instructors may work together to produce better teachers.

Little has been said of what is perhaps a misnomer, creative supervision. The April, 1929, number of *Educational Method*, "A Journal of Progressive Public School Method," gives an account by Julia L. Hahn, director of kindergarten and primary grades, San Francisco, of her work in reconstructing the schools in this city. The article is suggestive. Adequate judges have pronounced the work in San Francisco as progressive. Many cities are working along similar lines. Their product in child growth is now measurable.

We are now back at the crossways. In concluding this paper, I shall leave you there. I might indulge myself in speculation regarding the danger to American civilization of the *laissez-faire* attitude toward

the ability of children to *change*. There is in recent literature on nature and nurture a challenge to the extreme hereditarian point of view. While there probably will never be a final answer to this question, we have at least some reason to hope that children may change under guidance, at least more than we formerly believed, and that we, as supervisors, may help in changing children.

We have no report to offer on children's evaluation of teachers and supervisors. What do children think of us? We wish we knew. Personally, I hope they think us vital, companionable human beings, adventuring eagerly with them on the highway of life. To me education is a partnership of old and young in which we make human life pleasanter and more profitable.

Our New Knowledge of Personality

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MENTAL health and its corollary, mental hygiene, have come to occupy large space in the current literature of medicine and that of social problems. Mental health is gradually finding a place in educational writing. As a matter of fact, health as a term descriptive of the satisfactory adjustment of an individual to his environment is a very old concept in educational thinking, at least as ancient as Plato and the Greeks. New meaning attaches to the idea now because modern science —particularly the biological approach to psychology—has endowed the word with a far richer meaning than was possible in any previous time.

In so far as health connotes the physical needs of children and youth with a program for physical training and hygiene, the idea is fairly well incorporated in the currently accepted aims and practices of the schools. It is inevitable that education shall now enlarge its understanding of health to include all that modern medicine implies in the concept of mental health, and shall concern itself more directly than heretofore with the technical means of producing it.

The considerations which lead to this enlargement of the term "health" are numerous, but none is more coercive than the implicit nature of education itself, which has long been looked upon as a process of harmonizing an individual and his environment. This concept, which derives from biology, considers organic evolution as a process of adaptation by which the human organism thru its experiences, both the informal events of everyday living and the more formal experiences of the school, learns to live peaceably and effectively in its environment. It becomes adapted either by changes within itself or thru modifications in its surroundings. The individual in whom this adjustive process is complete is in a condition of health in a meaning of this term which allows no dichotomy between physical and mental. Mental health may be thought of as the end of the education process. The facts and principles of mental hygiene thus become a part of the principles of education in a very well established understanding of this realm of thought. The obvious conclusion from this identity of interest is that education as a practical endeavor cannot remain either ignorant of or indifferent to any new knowledge or skill which psychological medicine may bring to the aid of educational activities. Many indications prevail to show that such new aids are available.

Character Education and Scientific Method

It is an inevitable outcome of recent progress that the problems of character education should be approached by methods of scientific scru-

tiny. The application of analysis and measurement to other areas of mental life has yielded results that are startling in their revelations and fertile in their suggestiveness for the evolution of techniques. At the same time the ancient demand that the schools should produce men of power and loyalty has acquired a new insistence as American society has sought thru education the increasing satisfaction of its social needs. Briefly, to examine the possibilities created by the common incidence of these two forces upon current life is the intent of this paper. Has the scientific method any promise of helpfulness in the character problems which challenge all our educational endeavors to create a more satisfying human society? Will the intricate texture of personality yield its secrets little by little to the methods of experimental analysis and evaluation which have been so fruitful in other realms of nature so that we may plan an educational regimen with definite assurance as to its character outcomes? Anticipating the evidence to be presented later, let me now say that the thesis underlying this discussion is a qualified affirmative reply to these two questions. Already scientific psychology has something useful to offer; it promises more.

Character an Educational Ideal

It will be well to remind ourselves that American education has always been moralistic. Multitudinous are the devices which school men have invented for training the character, and, altho there is generally the deepest ignorance as to the psychological process by which the desired result is to be brought about, there is the profoundest faith that somehow desirable character will be achieved. No teacher or school administrator would admit, in general, that children in his school fail to acquire desirable habits of conduct. Altho our curricula are essentially concerned, both in content and in method, with matters of the intellect, our most fetching apologies for education have stressed its character-forming qualities. Yet we daily face the fact that, of the boys and girls who go thru our schools, many fail to meet with adequate strength of personality and character-tests of life. They prove deficient in industry, in honesty, in courage, in self-control, in patriotism, in personal integrity.

Two great groups of personality failures continuously confront us: those individuals who yield to delinquency and crime and those who succumb to certain forms of mental disease. At any given time there are in American jails and prisons about 140,000 men and women of all ages from early teens to old age. The annual admissions to all such custodial institutions are about 360,000, of whom more than 20,000 are juvenile delinquents. These figures indicate the number of boys and girls who presumably go thru our schools and who must be temporarily or permanently removed from free intercourse in society because of character defects so severe as to require legal restraint.

A special census[1] of hospitals for mental disease taken by the Federal Census Bureau as of January 1, 1923, shows that, during the pre-

[1] Pollock, Horatio M., Ph.D. "Outcome of Mental Disease in the United States." *Mental Hygiene* 9:783-804. 1924.

ceding calendar year from January 1 to December 31, 1922, the 526 institutions reporting received 73,063 new patients. Of this large group more than 40,000 were diagnosed as suffering from mental ailments that psychiatrists regard as in large measure preventable. Almost one-sixth of the total new admissions fell in the manic-depressive group, where at least 50 per cent of all cases constitute unnecessary breakdowns.[2] Even among those who reached the stage of hospital admission the census showed that 35.4 per cent were so far recovered during the period of residence as to be discharged as cured, and an additional 31.4 per cent as improved, thanks largely to the simplification of life provided by hospital residence.

From the figures just cited for crime and mental disease, it is apparent that yearly American life as we live it exacts a toll in broken character exceeding 100,000 individuals.

These data must be understood as representing the extreme forms of social maladjustment. Assuming that human liability to such character breakdowns under environmental pressures follows the law of normal distribution which has been demonstrated for a large body of human traits including intelligence, then we may suspect a borderland between the area of normal, efficient, and happy adjustment of life and the territory of complete disaster, loosely indexed as crime and insanity. This borderland is smaller than the former, but distinctly greater than the latter and the individuals inhabiting it are those persons in whom the battle for personal integrity is not completely lost, tho never wholly won. Here dwell many times 100,000 boys and girls, men and women, individuals to whom temptation is an ever-present demon and in whom fear and desire and despair rage unquenched. These are the individuals who fight incessantly for life against powers which, if not unseen, are at least little understood, and who, when their supporting forces weaken, add one more to the increasing throng who have yielded to the inevitable final cataclysm and collapse.

With the progress of scientific study of human failure it becomes apparent that a portion of it, probably a large portion, is unnecessary and preventable, did society but know enough and care enough to save itself this human waste. Realization of this fact lays a heavy challenge upon education, for the individuals who compose this year's 100,000 were but a little while ago the pupils in our schools. Glancing forward to the hundreds of thousands heading toward disaster ten years hence, it is obvious that, could we but locate them now, we would find them among our pupils, along with other hundreds of thousands whose doomsday is but eleven or twelve or twenty years in the future. If science has any insight into personality, it will clearly find a field for service.

What Is the Scientific Method?

In asking ourselves what the scientific method may contribute to our understanding and control of human character, we should proceed from a clear understanding of what this way of thinking involves. We

[2] Abbot, E. Stanley, M.D. "Preventable Forms of Mental Disease and How to Prevent Them." *Boston Medical and Surgical Journal* 174:555-563. 1916.

may think of it as involving certain steps and procedures which, for the present purpose, may be stated about as follows:

The scientific method implies: (1) the careful observation of human behavior under conditions that are constant, known, and describable; (2) the experimental analysis of such behavior into sufficiently fine units that it is possible to relate a particular item of conduct to some antecedent condition in the individual or his environment that may fairly be regarded as its cause; (3) the recording of such behavior, its antecedent and concomitant conditions, in a fashion so explicit as to be unmistakably understood and subject to repetition by other observers at other times and places; (4) the generalization of the observed relations between behavior and its causes to the degree that future behavior, both immediate and remote, may be predicted for a particular individual; (5) the determination of methods of controlling situations within and without the individual so that desirable forms of behavior may be produced for the welfare of the individual and the social group of which he is a part.

In passing in review the several types of researches relating to the personality, it will be neither possible nor desirable to apply the several criteria of the scientific method to each in turn. Scarcely one nor even all combined would satisfy a rigid evaluation in such terms. Altho it is necessary to recognize the exploratory character of practically all the work that has yet been done, it will be abundantly apparent that workers are pioneering a way into the unknown territory of character analysis.[2] The partial character of their methods and the tentative nature of their findings must be accepted as the first fruits of a genuine endeavor to bring this vague domain within the field of science.

Obviously the interests of science demand something more than promising plans for character education which are put into effect in the schools without any attempt to check the results eventuating. However clever a program may appear, or however satisfying it may be to its authors, such devices clearly fall short of the domain of science. At the best they are hardly more than interesting hypotheses upon which a scientific study might be based. Important as they may be for immediate purposes, they do not concern us here. We should examine as typical, certain approaches to the problem in which workers have been sensitive to the requirements of factual knowledge, altho it is not possible to bring within the compass of this paper all the contributions which science has made and can make to our understanding of character.

The Psychologist Discovers Attitudes

First of all let us note the recognition which psychologists have given to the influence of "attitude" or "mental set" upon behavior. The ancient recognition of this phenomenon by observers of mankind could be attested by copious citations from the literature of politics and religion as well as from that of psychology and morals. The pervasiveness with which it influences conduct is intuitively admitted by wise parents, skillful politicians, and leaders of men generally.

[2] This term is not used here in the pseudo-scientific sense of the current fortune-telling cults.

Like many another obvious factor in human nature, it for a long time escaped experimental investigation, even tho it has been clearly recognized in psychological writing from the days of William James. Thorndike makes the influence of the "mental set" one of his five subsidiary principles of animal and human learning, citing a variety of illustrative facts to exemplify the principle. Were a survey of the experimental literature possible, it might conveniently begin with Ach[4] and the "Wurzburg school"[5] who noted the definite alteration of results produced by a change in the "task" set for the experimental subject. With similar import, Book[6] noted that the set of mind has a determinable influence upon the rate at which an individual learns typewriting. Ruger[7] found an attitude of confidence a great aid in the solving of puzzles, and Swift[8] notes that a feeling of discouragement retards learning. Bronner[9] called attention to the fact that recalcitrancy, indifference, anger, depression, and the like may produce a marked difference in the score which an individual makes in a mental test designed to measure his intelligence.

Fernberger[10] showed in a psycho-physical experiment that by altering the instructions given to a subject, he could alter the capacity of that subject to make judgments in the discrimination of lifted weights; and Boring,[11] examining experimental studies, warns that in order properly to interpret results it is necessary that "the total Aufgabe under which the subject judges must be made definite in instructions, and must be more fully determined by means of repeated characterizations by the subject of his attitude and procedure." Baird[12] in a discussion of the effect of "intent" upon mental function writes as follows: "That the phenomena is volitional in its essential character there can be no doubt; indeed, there seems every reason to identify the intent with a phase of the volitional process, and hence to believe that coherent thinking is at bottom quite as much volitional as it is intellectual."

The simplification and refinements of laboratory experiment may seem remote from the pulsing problems presented by the concrete complexity of individual children. It is doubtless true, however, that the "Aufgabe" of the laboratory is akin in quality to the "mental sets" confronting a teacher in the classroom, and that, if we adequately understood the mechanism of the simpler phenomena, it would do much to illuminate the more concrete problems with which teachers must deal. A more direct attack upon the complex phenomena may, however, yield

[4] Ach, N., *Ueber die Willenstatigkeit und des Denken.* 1905.

[5] Titchener, E. B. *Experimental Psychology of the Thought Processes.* 1909.

[6] Book, William F. *The Psychology of Skill with Special Reference to its Acquisition in Typewriting.* 1908.

[7] Ruger, H. A. "The Psychology of Efficiency." *Archives of Psychology* XV. 1910.

[8] Swift, E. J. *Mind in the Making.* 1908.

[9] Bronner, Augusta. "Attitude as it affects Performance of Tests." *Psychological Review* 23:303-331. 1916.

[10] Fernberger, Samuel W. "The Effect of the Attitude of the Subject upon the Measure of Sensitivity." *American Journal of Psychology* 25:538-543. 1914.

[11] Boring, E. G. "The Control of Attitude in Psycho-physical Experiments." *Psychological Review* 27:440-452. 1920.

[12] Baird, John W. *The Rôle of Intent in Mental Functioning.* Philosophical Essays in Honor of James Edwin Creighton. pp. 307-317. 1917.

more immediately useful results. Such attempts have been made by Pressey[13] and Gates,[14] and others. Pressey attempted to show by the method of rating and correlation with school marks that certain character traits, which he denominates "school attitude," are almost as important as a child's purely intellectual capacities in conditioning his success in school. Gates, using a similar but more elaborate technique, concluded that, altho the method failed to reveal so clearly the effect of attitude on school work, "these facts do not minimize the importance of school attitudes."

References may also here be made to the work of May[15] in evaluating the part which industry, as measured by hours spent in study, plays in the success of a college student. He found that intelligence alone showed a correlation with college marks of .60; industry alone a coefficient of .32; but with intelligence and industry combined the coefficient rose to .80.

If we should turn from the attempts at controlled experiment to the clinical field, we would find abundant recognition of the rôle of attitude and mental set in the literature of psychiatry and mental hygiene, a literature which is rich in suggestion for experimental work.

While analysis of mental attitudes remains incomplete from the standpoint of science and while experimental technique is still inadequate, the progressive refinement in definition of the something-more-than-intellect in the human mind is in itself a distinct gain. Probably nothing has cleared the deck for action upon the complex phenomena we call personality so much as has the advance of recent years in understanding the intellect. The effort of psychologists to measure intelligence by objective methods has, by its very success, thrown into relief the limitations of the intellect itself. The conspicuous failure of investigators to find in the most dependable of intelligence measurements a perfect index of school achievement is the outstanding example. The imperfect relationship between these two functions, which have been the invariable result of correlation methods, has required students to look elsewhere than in mere intellect for an explanation of school success. At the same time it has become possible to evaluate the part which intellect plays in any given situation, to hold it steady, to keep its influence constant while we examine the other human traits that supplement its power. Because we are able to understand and describe the nature and amount of a twelve-year-old individual's intellect, we are now in a position to examine and possibly to evaluate the strength of supplemental traits which enable him to accomplish the performance of a normal thirteen-year-old or the weakness of traits which may allow him to fall to the level of a ten-year-old. The definiteness of the intelli-

[13] Pressey, S. L. "An Attempt to Measure the Comparative Importance of General Intelligence and Certain Character Traits in Contributing to Success in School." *Elementary School Journal* 21:220-229. 1920.

[14] Gates, Arthur I. "The Correlations of Achievement in School Subjects with Intelligence Tests and Other Variables." *Journal of Educational Psychology* 13:129-139. 223-235; 277-285. 1922.

[15] May, Mark A. "Predicting Academic Success." *Journal of Educational Psychology* 14:429-440. 1923.

gence measures thus eliminates a large amount of vagueness from the region of character analysis itself.

The Testing Attack on Personality

The success attending intelligence measurement has gone beyond the negative definition of a field lying without its domain. It has suggested the extension of the measuring techniques into the field of the personality itself. Downey,[16] whose Will Temperament Tests may be mentioned not so much for their intrinsic worth as character measuring devices but for the stimulation which they gave to related investigation, is a pioneer in the field.

Largely thru the use of handwriting devices, Downey sought to measure (1) the "speed and fluidity of reaction"; (2) its "forcefulness and decisiveness," and (3) its "care and persistence." Despite the failure of her particular tests to achieve sufficient reliability to justify widespread confidence, they have stimulated investigation,[17] and led to adaptations[18] and to the development of new methods of measurement.

More significant is the work of Voelker[19] in devising tests of trustworthiness; Moore and Gilliland[20] in the measurement of aggressiveness; Cady[21] in developing tests of trustworthiness, honesty, and moral judgment; Woodworth[22] in constructing a questionnaire-test for emotional instability; Laslett[23] in devising association tests by which to distinguish delinquents from non-delinquents; Wyman[24] in the use of similar tests to measure social and activity interests; and Raubenheimer[25] in preparing a group of tests for measuring moral instability. All of these efforts

[16] Downey, June E., Ph.D. *The Will Temperament and its Testing.* World Book Company. 1923.

[17] Filter, "Experimental Study of Character Traits." *Journal of Applied Psychology* 5:297-317. 1921.

Bryant, "The Will-Profile of Delinquent Boys." *Journal of Delinquency* 6:294-309. 1921.

Ruch, G. M. "A Preliminary Study of the Correlations between Estimates of Volitional Traits and the Results from the Downey Will-Profile." *Journal of Applied Psychology* 5:159-162. 1921.

Meier, Norman C. Master's thesis. Quoted by Downey, *ibid.* P. 177.

Ream, M. J. "Group Will-Temperament Tests." *Journal of Educational Psychology* 13:7-16. 1922.

Yoakum, C. S. "Educational Psychology at the Princeton Meeting of the American Psychological Association." *Journal of Educational Psychology* 13:109. 1922.

[18] Charters, W. W. "Success Personality and Intelligence." *Journal of Educational Research* 11:171-2. 1925.

[19] Voelker, Paul Frederick. "The Function of Ideals and Attitudes in Social Education." Teachers College *Contributions to Education*, No. 112, Columbia University. 1921.

[20] Moore, H. L., and Gilliland. "The Measurement of Aggressiveness." *Journal of Applied Psychology* 5:97-118. 1921.

[21] Cady, Vernon M. "The Estimation of Juvenile Incorrigibility." *Journal of Delinquency Monograph No. 2.* 1923.

[22] Woodworth, R. S. *Tests of Emotional Instability.* Handbook of Mental Examination Methods, Franz, S. I., 171-176. 1919.

[23] Laslett, H. R. "Preliminary Notes on a Test of Delinquent Tendencies." *Journal of Delinquency* 9:222-230. 1925.

[24] Wyman, Jennie Benson. "Tests of Intellectual, Social and Activity Interests." *Genetic Studies of Genius*, Terman, L. M., Vol. 1:Chap. XVI. 1925.

[25] Raubenheimer, Albert Sydney. "An Experimental Study of Some Behavior Traits of the Potentially Delinquent Boy." *Psychological Monograph* XXXIV: No. 6. 1925.

have a common element in that they require an objective performance on the part of the subject in a more or less definitely controlled situation. The subject does something and in doing it reveals indirectly qualities of personality that are significant for larger issues of life. The fact that investigators in these matters have secured tests with coefficients of self-correlation ranging from .75 to .95, and correlations with other accepted criteria of the traits in question ranging from coefficients of .40 to .74 shows that already the measurement of some character traits has reached a state of reliability and validity fairly comparable with the measurements of intelligence of a few years since, and equal or superior to many of the devices now used for measuring scholastic achievement.

These attempts at personality measurement are oriented primarily toward the extremes of conduct. It is sought in one direction to tap those qualities of character that precede and accompany delinquency; at the other extreme the aim is to identify those mental mechanisms that are concerned with achieving desirable behavior, to lay bare the processes by which worthy ideals may be made effective. The success already attending these measurement efforts is warrant for expecting most important revelations thru methods of this type. If we once can understand the elements and processes of the personality we may be able to control the essential conditions of life that will make desirable character possible.

Improving Judgments of Personality

While there has been some progress in the development of exact objective measures ot character traits themselves, there have also been encouraging attempts at improving the common sense judgments of character which all of us make and the rendering of such judgments valid, reliable, objective, and scorable in mathematical terms. The development of techniques for the identification and the rating of character traits that are determinative of success of efficiency has a long and varied history. Galton[26] in his studies of human nature; Cattell[27] in determining the order of merit among American men of science; Terman[28] in his attempts at the validation of intelligence tests; Scott[29] in his efforts to evaluate the essential qualities of industrial workers and to improve the technique of selecting officers in the United States Army; Charters[30] in his search for the elements of success in secretaries, salesmen, and other commercial workers; and Courtis[31] and others in preparing scales of merit in teachers;—to indicate the wide variety of fields in which the problem has been attacked,—have all sought to perfect the judgment of human traits and to protect it from the errancies which so easily beset it.

[26] Galton, Frances. *Inquiries into Human Faculty and Its Development.* 1883.

[27] Cattell, J. McKeen. *American Men of Science.* 1906.

[28] Terman, Lewis M. *The Measurement of Intelligence.* P. 75. 1916.

[29] *The Personnel System of the United States Army.* Vol. 1, Chaps. 4 and 43. 1919.

[30] Charters, W. W. "A Technique for Trait Analysis." *Journal of Educational Research* 10:95-100. 1924.

[31] Courtis, Stuart A. *Rating Scale for Teachers.*

The liability of the judgment to error in the estimation of personal qualities has been extensively exploited in the literature.[32] Despite its inadequacies, there has been no adequate substitute devised, altho in the matter of general intelligence the tests have pretty effectively replaced it as an instrument of accurate information. The natural convenience of judgment and its modicum of reliability will, however, incline students to use it as a measure of information in all fields where more reliable measures are still wanting. Fortunately there are developing certain techniques that tend to eliminate the common errors of judgment and to compensate for such as cannot be eliminated. Reference may be made to two such lines of improvement.

The first concerns the better identification and definition of traits to be rated. Citation for illustration may be made to the work of Charters[33] who defines six problems that emerge in the attempt to identify the traits that can usefully be rated. These concern the initial "collection" of personality data that are pertinent to a particular vocation, the "definition" of such traits into explicit modes of behavior, the "translation" of such behavior items into "standard terms," the "condensation" of the list of terms so translated into the smallest dependable limits, the "evaluation" of the several items in terms of the statistically treated judgments of qualified experts in the field, and finally their use in actual work.

The second line of improvement has related to the means of rendering the judgment more exactly a measure of the trait rated. Probably the most significant advance has been the introduction of the graphic method, suggested by Ruml and described by Paterson.[34] The method involves the use of a horizontal line across a page. Along the line points are designated which divide it into three, five, seven, or more, equal segments. At these points are written or printed words or phrases descriptive of the trait in question. The arrangement is such that the low extreme of quality or the least amount of the trait is indicated at one end of the line; at the other end is represented the opposite extreme of the trait. The line thus assumes the nature of a scale along which the trait distributes itself in amount, or desirability, or effectiveness, or such like. The method lends itself to statistical treatment for reliability and validity,[35] and the computation of a score in mathematical terms.

As a result of the numerous studies of rating techniques recently made, there emerge two facts of great scientific and practical value, namely, that some persons have more than ordinary capacity to make reliable and valid judgments of character, and that it is possible to train other individuals to improve the judgments which they make.

[32] Rugg, Harold O. "Is the Rating of Human Character Practicable?" *Journal of Educational Psychology* 12:425-434, 485-501, 1921; 13:30-42, 81-93, 1922.

Cleeton, Glen and Knight, F. B. "Validity of Character Judgments Based on External Criteria." *Journal of Educational Psychology* 8:215-231. 1924.

[33] *Ibid.*

[34] Paterson, Donald G. "The Scott Company Graphic Rating Scale." *Journal of Personnel Research* 1:361-376.

[35] Terman, L. M. *Genetic Studies of Genius*, Chap. XVIII, pp. 519-555. 1925. Freyd, Max. "The Graphic Rating Scale." *Journal of Educational Psychology* 14:83-102. 1923.

The Record of Behavior

Realization that an understanding of the personality is seriously hampered by the absence of facts is leading students more and more to make a written record of the observed facts of behavior, elemental and complex. Increasingly the practice grows of substituting for adjectival descriptions of states of mind or character an exact statement of what an individual does under circumstances that are rendered as objective as language and mathematics can make them. This is the direction of progress from Hall's vigorous inquiry into the concrete nature of childhood to the present throng of students whose number seems just now to be multiplying. Appropriate citation should here be made to the work of Watson,[36] in his experimental study of instinct and emotion; to that of Richards,[37] in the adaptive difficulties of school children; to that of Woolley,[38] in personality studies of young children; to that of Mateer,[39] in the investigation of unstable personality in children; and to the accumulating records concerning problem children in the files of the Child Guidance Clinics under the Joint Committee on Methods of Preventing Delinquency.[40]

The attempt of Dr. Andrus,[41] with the aid of twenty-five students, to give an inventory of the habits of nursery-school children, and similar studies by Rogers and by Taylor covering other ages, are at once a frank recognition of our defective information in such matters and an effort to repair the deficiency. Reference may also here be made to a paper[42] where the writer has discussed the results of a device of Mr. Wickman's for recording behavior that is obnoxious to the school situation. Such studies leave much to be desired in the way of accuracy, of completeness, and of differential significance of the data recorded, but they render the tremendous value of fixing the analyzing attention upon overt behavior as a first step in understanding the character of a child.

The Identification of Interests

There has long been recognition of the fact that objects of interest determine conduct and that there are great differences among individuals in this respect. Some children show, very early in life, definite leanings toward music or games or mechanical things or books. The marked cases are easily observed, but we have had slight technique for the exact determination of fundamental preferences which are often too deeply hidden for even the individual himself to recognize. He does not

[36] *Ibid.*

[37] Richards, Esther Loring. "Some Adaptive Difficulties Found in School Children." *Mental Hygiene* 4:331-363. 1920.

[38] Woolley, Helen T., Ph.D. "Personality Studies of Three-Year-Olds." *Journal of Experimental Psychology* 5:381-391. 1922.

[39] Mateer, Florence. *The Unstable Child.* 328 pp. 1924.

[40] *Three Problem Children.* 1924.

[41] Andrus, Ruth. "A Tentative Inventory of the Habits of Children from Two to Four Years of Age." Teachers College *Contributions to Education*, No. 160, Columbia University. 1924.

[42] Haggerty, M. E. "The Incidence of Undesirable Behavior In Public School Children." *Journal of Educational Research* reprint, 12:102-122. 1925.

seem himself as different from others, and teachers have vague standards with which to compare him.

A greater effort has been made to understand the interests of children in reading[43] materials than in any other field. Yet recently "interest blanks" have become common in personnel studies having to do with training and educational matters, and Terman and his colleagues[44] have demonstrated new possibilities in the range and the statistical treatment of this kind of data.

The importance of such studies should not be minimized. The most important causal factor in the conduct of any man or child is what he wants. What one knows of information or values is subordinate to the drive toward the object of fundamental interest. If we could once determine what these interests are, we would have the master key to conduct.

The Genetic Character of Personality

Quite as important as any special technique for evaluating human traits is the hypothesis of the genetic character of personality. Just now this concept gives evidence of new fruitfulness in the field of character education. A natural extension of the fertile hypothesis of evolution, "the genetic ideas of the soul" were claimed by Hall two decades ago to be "new in both matter and method."[45] Even yet we have hardly conceived our educational program in terms of a genetic psychology, partly, no doubt, because such a psychology has been provided only in its grosser outlines. Recent studies, however, have revitalized the genetic concept and quickened anew our interest in mental growth. The development of intelligence examinations by which it is now possible to state intellectual qualities in genetic terms that are quantitative and mathematical has given a more tangible basis for arranging educational procedures in developmental terms.

There are, besides, direct attacks by improved methods of observation upon the genesis of emotive qualities themselves. Renewed efforts at inventorying the reactions of new-born infants[46] and at studying the early conditioning of infant responses,[47] and the behaviorist's challenge to the older theories of instinct and emotion have not merely freshened our interest in the developmental aspects of character, but they have revised the hope that producing desirable character may not be so forlorn a task as prevailing theories of heredity indicate.

Powerful support to this view is given by recent advances in psychiatry and the field of mental health. More and more as clinical studies proceed, it becomes apparent that character eruptions, whether in the field of mental disease or in that of crime and delinquency, are not sudden events. The cataclysmic happening that compels our attention

[43] Jordan, A. M. *Children's Interests in Reading.* 143 pp. 1921. Trow, Charles Sumner. "Evaluation of English Literature in the High School." Teachers College *Contributions to Education,* No. 141. Columbia University. 1924.

[44] Terman, Lewis M. *Genetic Studies of Genius.* Vol. 1: Chaps. XIII-XVI. 1925.

[45] Hall, G. Stanley, Ph.D., LL.D. *Adolescence: Its Psychology.* Vol. I, p. v. 1904.

[46] Blanton, Margaret Gray. "The Behavior of the Human Infant during the First Thirty Days of Life." *Psychological Review* 24:456-483. 1917.

[47] Watson, John B. "Powell Lectures." *Pedagogical Seminary* 32:293-372. 1925.

is but the end result of a genetic process initiated in early, possibly infant, years. Hall long ago declared his psychologic faith that "Youth is the golden age of life,"[48] and confirmation is given to this view in increasing measure by those who study the maladjustments of boys and girls.

Tho Hall's statement may be true as an indication of certain issues of life, it is more correct to believe with White[49] that the golden age for the setting of character is childhood and infancy. The more investigation proceeds, the farther back toward the natal hour is carried the initial bending of the twig which gives incline to the full-grown tree. So powerfully do the studies in mental pathology suggest the crucial character of these earliest years for character education, that we have not merely a recrudescence of faith in the kindergarten, but a wave of interest in both the scientific and practical usefulness of nursery schools and a new vision of the obligations of parents, nurses, and others whose doings affect very young children. Everywhere those who are interested in mental hygiene for the adult are striving to see that "faulty structures and discordant colors" are not in tender years woven into the "fabric of character." "The child capricious in diet, insistent on his own sleep conditions, obstinate in refusal of regular toilet habits, gaining his own ends by the display of unpleasant tantrums, will have difficulty in adult life in adapting himself to the demands of a real world, which is not prone to bow before tantrums, which exacts inexorably the price for neglect of simple hygienic habits."[50]

The lessons of the mental hygienist is that the period for making sound adult character is the period of these early years.

Recognition of Multiple Causation

Out of all these studies on the personality, there has emerged one necessary hypothesis for any adequate program of character education or for the intelligent analysis of the complex factors of the personality itself, the principle of multiple causation. Mayo[51] found in analyzing the symptoms which indubitably located a social or school problem that he must secure at least three negative counts before being certain of identifying a problem case. Miss Dealey,[52] in a case study of thirty-eight problem children, was unable to find any single causative factor operative in producing the undesirable behavior in any large group of cases nor, in fact, any element that could not be found in many cases of perfectly acceptable children. What she did find was always a concomitancy of several situation elements, the very juxtaposition of which seemed the only rational explanation of the undesirable behavior in the individual.

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[48] *Ibid.*, II. p. 55.

[49] White, W. A., *The Mental Hygiene of Childhood.* 190 pp. 1919.

[50] Campbell, C. Macfie, M.D. "The Experiences of the Child: How They Affect Character and Behavior." *Mental Hygiene* 4:314. 1920.

[51] Mayo, R. J. *The Relation between School Problem and Social Problem.* Unpublished thesis. University of Minnesota. 1922.

[52] Dealey, Clara Elizabeth. *Problem Children in the Kindergarten, First and Second Grades.* Unpublished thesis. University of Minnesota. 1922.

Low intelligence does not explain misconduct, for there are more morons of acceptable life habits than there are moron delinquents—obversely, there are many intelligent criminals. Broken homes do not explain child delinquency for there are many divorced parents whose children are models of social conformity and there are many delinquent children whose parents live in felicity. Poverty will not explain the crime and mental breakdown of children, for out of the direst poverty have at times come the most virile character, while law violators are found at every level of wealth. But let poverty and marital misfortune in the parents and a meager intellect find their common incidence in the life of little Johnny Smith and the possibilities of character breakdown in him are multiplied a thousand fold. Facts of this sort justify the expensive case study method now so much used in social work and which seems a necessary instrument in the understanding of human character, its drives and its adjustments.

The Coöperative Program

The implication of the foregoing considerations seems to the writer very plain. The nature of the personality and the matter of character education are not to be left to fond hoping and empirical blundering any more than is the field of the education of the intellect itself. Granted that study in this field has thus far succeeded only to the extent of teasing out a few fibers from the complex tissue of character, still these frail tendrils of fact are of the deepest significance. They mean that, however slowly, yet surely, the methods of science are beating back the outposts of ignorance and superstition that thwart our need for understanding the fundamental desires, or drives, that make men act as they do. The substantial progress which these studies have already made give us criteria for a re-evaluation and improvement[53] of educational practice; they furnish some information upon which we can project the control of behavior, and the prediction of ultimate character development. More important than these immediate values they initiate the methods for fundamental research in the matter of character education.

Of greater import than any of the detailed techniques of research is the realization that effective investigation in the field of the personality must be a coöperative affair. In a genuine sense character is the behavior of a whole organism acting as a unit, and in some respects this wholeness includes the stimulating environment as well as the living protoplasm encased within a single human skin. The sciences which may contribute to our understanding of character are thus widely inclusive. No single scientist in the world today sufficiently represents in his own person all the pertinent knowledges and methods necessary. Medicine is in some respects the most richly endowed discipline for the task, but its limitations are obvious and glaring. Psy-

[53] Richards, Esther Loring. "The Elementary School and the Pre-School Child." *Mental Hygiene* 5:707-719. 1921.

Burt, Cyril. *The Young Delinquent.* 1925.

Gleuck, Bernard. "Some Extra-Curricular Problems of the Classroom." *School and Society* 19:143-149. 1924.

chology is fertile in orientation and technique, but the "mere" psychologist is but partially equipped. The same may be said of the sociologist and the educator. But, while none of these is completely fitted to the task, by their coöperation we can go far in the satisfactory understanding of character and its control. Terman's studies of gifted children[4] is an interesting illustration in the matter of personality research with the way led by the psychologist. The child guidance clinics of the Joint Committee on Delinquency is another equally interesting research with the medical man at the helm. It matters less in the long run that the immediate leadership shall be of any particular profession than that it shall recognize the need for the comprehensive and coöperative attack upon the problem.

The Social Significance of This Program

It is difficult to break away from this discussion without a word as to the social significance of research in the field of personality. The most significant contribution which psychology has made to social welfare is the recently developed knowledge about the intellect, its nature and mode of operation and the method of its control. At least of equal importance would be a corresponding knowledge about character, its elements and its processes of formation. Intelligence and character,—these are in the long run the world's greatest assets. No community wealth imaginable would rival in merit a thoro scientific understanding of human nature from the angle of these two concepts. A million dollars a year for fifty years devoted to researches in the matters of the intellect and personality would yield a wealth so incalculably greater than is likely to come from one of the $50,000,000 battleships which we build so facilely and destroy so casually that the comparison seems childlike. It may be hoped that somehow society will find the way to devote a larger portion of its resources to these important matters.

Introductory Remarks

(Evening Session)

H. M. WHISLER, Director of Division of Teacher Training, State Department of Public Instruction, Indianapolis

ACTUAL supervision of classroom instruction is of such recent origin, as compared with other activities in the school, that the duties of the supervisor are much less clearly defined than the duties of other members of the organization. It is true that for many years superintendents and principals have included in their larger round of duties that of the supervision of classroom instruction. Nevertheless, such supervision, until quite recently, has been largely from the standpoint of an instructor or administrator rather than from the standpoint of a supervisor. Much time was devoted to ascertaining the material needs in the room, such as equipment and other supplies, and to rating the teacher for the purpose of deciding the question of continuation of employment. Only recently has there been a well defined effort on the part of supervising officials toward the improvement of the teacher's technique and methods.

There are certain fundamental principles, however, on which it seems that a rather general agreement of opinion has been reached. In the first place, all agree that, under present conditions, teachers enter service with a type of training that leaves a need for still further training and development. In other words, it is expected that a teacher will improve greatly thru experience during the first few years of actual teaching experience. To facilitate and assure such improvement, it seems necessary that there shall be definite and expert analyses of the teacher's activities. Such analyses the teacher, of course, is unprepared to make for herself. It is just at this point that the supervisor enters into the general scheme and supplies the type of analysis needed and offers that guidance the teacher requires for the improvement of her technique. Economy of time and effort demands that duplication in training should be reduced to a minimum. As the situation now exists, we have courses in the training institutions in which the prospective teacher engages in actual teaching during which she is carefully supervised. The purpose of these courses is to develop a satisfactory group of teaching techniques. The teacher is here instructed in the construction of plans, presentation of material, and the various other items entering into the teaching process.

After completing the training courses, the teacher then enters service and assumes charge of a class under the direction of a supervisor. This supervisor is working towards the same objective as the critic

teacher and director of student teaching in the training course. So far, however, there has been practically no effort to correlate the work in the training institution with the work of supervision after entrance into service. The director of student teaching is handicapped by the fact that he does not know definitely what will be expected of a teacher when she enters service. The supervisor feels himself handicapped because the teacher comes to him without the abilities he expects her to have developed in her student teaching. A better understanding between directors of student teaching on the one hand and supervisors on the other as to just what techniques and abilities shall be developed in the training school and what may properly be left over to later supervision would undoubtedly be helpful to all parties concerned. The administrators of student teaching courses would not be so uncertain as to what will be expected of their students when they enter service later and the supervisors would not have to expend their time and effort in developing those abilities that the teacher should, but does not, possess on entering service.

In the hope of making some beginning, at least, toward an understanding between these two groups, the program of the present evening has been arranged. Professor Clem O. Thompson, of Ball State Teachers College, has very kindly consented to lead in the round table discussion of the questions indicated on the program.

What Specific Teaching Abilities May Supervisors Justly Expect Beginning Teachers to Bring to Their Work as the Result of a Course in Student Teaching, and What Specific Abilities Should We Expect to Be Developed thru Supervision During the First Year of Service?

CLEM O. THOMPSON, Ball State Teachers College, Muncie

ANY discussion of these two questions cannot be wholly separated from a brief mention, at least, of the courses given in preparation for student teaching. Mere mention of these courses will be made, however. It is common knowledge to all that a candidate for student teaching must have completed a number of courses, the purposes of which might be listed as follows:

1. To help the prospective teacher to become acquainted with those psychological and educational principles which are basic to teaching.
2. To help the prospective teacher to *master* that body of knowledge which she will be called upon to use in stimulating boys and girls to learn.
3. To help the prospective teacher acquire the ability to use the English language with at least a modicum of efficiency and accuracy.

The basis for what little your speaker has to present was secured principally from student teachers, critic teachers, and superintendents, principals, and supervisors in the field.

The speaker sent out the following letter to about fifty school people:

COPY

Dear Sir:

I have been asked to open the discussion at the evening session of the Supervisors' Conference to be held at Bloomington, April 18. The two questions around which discussion will center are:

1. What specific teaching abilities may the supervisors justly expect a beginning teacher to bring to her work as a result of a course in supervised teaching?
2. What specific abilities should we expect to be developed through supervision during the beginning teacher's first year of service?

I desire to start this discussion as near the earth as is possible. Will you please help me by sending me a list of abilities under each of the above headings?

I assure you that any help will be very greatly appreciated.

Very truly yours,

(signed)————.

He desires here to acknowledge publicly his indebtedness to all of these busy people for their help. An examination of the contributions from these superintendents, principals, and supervisors would convince anyone that Indiana has a body of school men and women "on the job," analyzing the teaching situations in their respective schools in excellent fashion.

If one were to judge from the statements sent in from all sources, one would have to conclude that there are many teachers in training and many superintendents, principals, supervisors, and teachers in the field who feel that the present teacher training program results neither in a mastery of subject-matter nor in the acquisition of the ability to use the English language effectively and accurately. Whether these shortcomings are due to the type of preparatory courses, the content of these courses, the length of time devoted to them, or to some other cause or causes is a matter for further study. The statement might be added that such study should be made at once.

Let us assume for the present, however, that the preparatory courses do prepare for student teaching.

1. What specific teaching abilities may supervisors justly expect beginning teachers to bring to their work as the result of a course in student teaching?
2. What specific abilities should we expect to be developed thru supervision during the first year of service?

Student teaching may be thought of as a short period of internship during which the prospective teacher will have the opportunity to try out, under the watchful eye and guidance of a sympathetic master teacher, the principles and theories which she has learned in the preparatory professional courses. In this same situation she will also try to use the various subject-matter and materials which she has acquired to use in the educational process. To quote one superintendent, "Student teaching is not expected to originate teaching ability but to start it toward development." One principal stated, "I am assuming that the student teaching unit and the one year of teaching following constitute a consecutive unit, in that the supervisor of the beginning teacher can and will supervise and that she knows the specific abilities the student teaching course is supposed to develop."

What are some of the specific teaching abilities which supervisors may justly expect beginning teachers to bring to their work as a result of a course in student teaching? The following are those abilities listed by the various people mentioned earlier. Whether students in present student teaching courses acquire these abilities is for you superintendents, principals, and supervisors to decide. Whether student teachers in the future acquire them, granting that the objectives are valid, is for the teacher training institutions to decide. They are presented as a basis for any discussion which you might care to initiate.

What specific teaching abilities may supervisors justly expect beginning teachers to bring to their work as the result of a course in student teaching?

1. Acquire a broader vision of the possibilities of teaching.
2. Realize that a teacher is an example.

3. Acquire an enthusiasm for her work.
4. Acquire initiative and resourcefulness.
5. Ability to use originality.
6. Acquire an understanding that teaching is real work.
7. Acquire an optimistic outlook.
8. Possess a willingness to work.
9. Be open-minded.
10. Learn how to work with people.
11. Realization of a need for a desirable personal appearance.
12. Ability to lead, not drive.
13. Learn to be firm but fair.
14. Learn to be accurate.
15. Learn to be neat.
16. Realize the need for the possession of good manners.
17. Possess a real love for the profession.
18. Possess a high moral sense.
19. Be cultured and refined.
20. Overcome objectionable mannerisms.
21. See and feel the responsibility placed on a teacher.
22. Overcome the repetition of answers.
23. Learn how to discover weak points.
24. Acquire the habit of promptness.
25. Realize the importance of thoro preparation.
26. Acquire confidence in one's self.
27. Ability to control one's voice, posture, movements, and mannerisms.
28. Be familiar with the course of study on the level where one is teaching.
29. Ability to criticize one's self.
30. Acquire a love for and patience with children.
31. Have mistakes pointed out definitely to one.
32. Acquire knowledge of general school problems.
33. Opportunity to outline one's own work for the term.
34. Receive some suggestions on outside readings in point.
35. Ability to analyze own mistakes.
36. Opportunity to have complete charge of a room and the hall.
37. Opportunity to arrange for a special room program.
38. Opportunity to write plans.
39. Opportunity to attend teachers' meetings and to participate.
40. Learn the duties of a teacher.
41. Learn the complexity of a school organization.
42. Ability to organize a class of forty pupils on the opening day of school into one or more instructional groups.
43. Learn how to arrange seating of pupils.
44. Privilege of rearranging children.
45. Ability to seat and training of seating pupils in assembly.
46. Ability to regulate the mechanics of a classroom as they are conducive to good instruction.
47. Ability to control room—temperature, ventilation, and lighting.
48. Learn how to take the class roll in the minimum time.
49. Ability to formulate and use a program.

50. Ability to grade papers and give grades or marks.
51. Experience in grading papers and giving marks.
52. Ability to make out term grades and reports.
53. Receive some training in giving grades or marks.
54. Learn how to make health reports.
55. Learn how to render first aid.
56. Realize the need of a good assignment.
57. Realize the importance of an assignment.
58. Realize the need for definite assignments.
59. Realize that an assignment should be pupil-teacher made.
60. Ability to use pupil activity in making assignments.
61. Ability to locate the interests of children as a basis for assignments.
62. Realize the importance of motivation.
63. Ability to motivate the work of the pupils.
64. Opportunity to see a lesson in which a lantern and other visual aids are used and ability to use these aids.
65. Learn the effectiveness of visual material and instruction.
66. Ability to plan opening exercises.
67. Opportunity to try out different methods of presentation.
68. Opportunity to try out own ideas.
69. Opportunity to direct playground activity.
70. Acquire the ability to analyze a textbook to determine its value in the classroom.
71. Acquire the art of questioning.
72. Ability to ask definite questions.
73. Learn to make and use good questions.
74. Ability to ask leading questions.
75. To acquire practice in setting up specific objectives for each instruction period which are contributions to the general objectives which have been determined.
76. Ability to organize material.
77. Realize the necessity of organized plans.
78. Ability to follow plans.
79. Practice in developing and using lesson plans.
80. Opportunity to use various types of lessons.
81. To appreciate that the teacher's job is to stimulate and to guide pupils to do things themselves.
82. Learn to emphasize pupil activity, rather than subject-matter.
83. Select and use commonly known devices.
84. Putting into practice theoretical knowledge.
85. Realization of the need of supervised study and learning how to supervise the study of pupils.
86. To learn to speak in words of the children.
87. Opportunity to study children.
88. Opportunity to have contact with children.
89. Help pupils develop interests and desires.
90. Learn not to expect too much from children.
91. Ability to analyze the course of study and determine what is to be done.
92. Practice in meeting unexpected problems.

93. Learn to foresee difficulties.
94. Practice in logical development of a lesson.
95. Ability to select the important and reject the unimportant.
96. Ability to plan a course.
97. Ability to accomplish aims.
98. Ability to conceal mechanics of presentation.
99. Learn how to use reference material as aids in teaching.
100. Learn how the laws of learning actually function.
101. Realization that teaching is a science and an art.
102. Realization that education is an evolutionary process.
103. Learn how to apply experiences.
104. Ability to make transition.
105. Help to use subject-matter and method courses.
106. To realize that materials of instruction are subordinate to children.
107. Learn how to place theory into practice.
108. Learn that the teacher must have subject-matter well in mind.
109. Learn how to help children apply knowledge.
110. Learn how to organize subject-matter and put it over.
111. To understand children sufficiently well to know *some* of the standard reactions *some* types of children of the age being taught will make.
112. To learn how to instruct groups of retarded and advanced pupils as well as average pupils.
113. Learn how to discover needs of pupils and have practice in doing so.
114. Acquire some experience in diagnosing difficulties.
115. Ability to "find" the learner.
116. Adapt subject-matter and method to needs of individual children.
117. To receive practice in initiating and carrying on some remedial instructions.
118. Ability to recognize the individuality of the child and provide for it.
119. Learn use of tests and how to give them.
120. Ability to use and interpret standard tests.
121. Ability to test work that is done.
122. Opportunity to teach a lesson in a special room.
123. Ability to assume control of a class in a disciplinary way.
124. Learn various kinds of punishments.
125. Ability to discipline children outside of school.
126. Help in handling discipline problems.
127. Ability to adapt one's self to the school and community.
128. Learn how to care for difficulties with parents.
129. Learn how to secure coöperation of the parents.
130. Opportunity to attend Parent-Teachers' Meetings.
131. Opportunity to meet the parents of the children and to learn the value of teacher-parent conferences.

The second question—What specific abilities should we expect to be developed thru supervision during the first year of service?

A summary of all the replies received from the school people in the field might be stated as: "To help the new teacher to adapt herself to the new conditions and to help her attain a higher degree of

skill in doing those things which she had already done in her student teaching"—as one supervisor stated, "A refinement of abilities acquired in the apprenticeship course." To quote further from a principal's letter, "Many of the specific abilities cannot be finished products at the end of a course in student teaching or even at the end of a year of experience, and such abilities must have attention from the very beginning." An assistant superintendent stated the case as follows: "I look upon student teaching as an opportunity for a prospective teacher to put into practice in *one* specific situation the theories of teaching which she has learned. We expect to have to help her adjust herself to our conditions. However, we expect her training to be general and broad and deep enough to enable her to adapt herself with our help. We do not expect her to have learned that there is but one way of doing a piece of teaching." Another supervisor stated her problem, as it related to beginning teachers, as "the development of a solicitous educational mind with initiative to locate information that will furnish solutions to her problems."

More specifically, the problem of the supervisors in relation to beginning teachers may be said to be that of helping the beginning teachers to learn how to do better those things which they did in student teaching. (Reference may be made to the foregoing list.)

It might be wise, as a basis for discussion, to list the following abilities which, in some respects, might be considered as additional abilities to those listed before.

What specific abilities should we expect to be developed thru supervision during the first year of service?

1. Ability to profit from supervisor's assistance.
2. Ability to correlate one's work with that done by other teachers.
3. Learn how to work on committees.
4. Ability to work with supervisors.
5. Ability to coöperate with teachers.
6. Ability to profit by the experience and knowledge of the supervisor
7. Learn from supervisor mannerisms one should correct.
8. Ability to try out new procedures.
9. Learn how to grow in service.
10. Acquire a professional attitude.
11. Acquire a personal creative attitude.
12. Secure and respect the other person's point of view.
13. Eliminate poor personal qualities.
14. Acquire the ability to set up standards of attainment for various types of procedures.
15. Ability to use all local materials and aids to the best advantage.
16. Ability to interpret the curriculum and course of study in light of community needs.
17. Learn how to guide the children in moral development in the community.
18. Become acquainted with the routine of the building in the new position.
19. Learn to handle the general school activities.

20. Ability to plan larger units of work.
21. Learn how to become a bookkeeping teacher.

Another source of help in this problem is, obviously, the *Commonwealth Teacher-Training Study* by Charters and Waples. A familiarity with this study would about convince one that here is the Alpha and Omega of the basis for the revision of teacher training courses. There is one table reported in this study which is especially pertinent to our problem—"Table D, Decile Ranks of Activities as Rated for Desirability of Pre-service Training." (Those activities listed in Divisions IIA and IV, "Activities Involved in Recording and Reportng Facts Concerning Pupils," and "Activities Involving Relationships with the Personnel of the School Staff," are not included.)

In order to provide a list of activities to serve further as a basis for discussion, all of those activities which received an average ranking of 6, 7, 8, 9, or 10 are listed as activities which must receive some considerable attention at the hands of the supervisors. If the activities under Sections IIA and IV had been included, the list would have been much larger.

1. Finding adequate time for planning.
2. Filing and preserving plans.
3. Utilizing plans.
4. Adapting materials to time limit.
5. Finding adequate time for selection and organization of material.
6. Determining pupils' interests.
7. Suggesting new interests.
8. Following up pupils' responses.
9. Indicating pupils' difficulties and errors.
10. Checking pupils' understanding of work to be done.
11. Following up assignments.
12. Providing necessary materials.
13. Expressing interest in subject taught.
14. Expressing interest in individual pupils.
15. Expressing qualities of leadership, such as self-confidence, fairness, etc.
16. Teaching pupils to establish friendly relations with other pupils.
17. Teaching pupils to meet formal requirements.
18. Teaching pupils to check teachers' directions for clearness.
19. Teaching pupils to recall useful information obtained from reading and experience.
20. Teaching pupils to collect necessary supplies and equipment.
21. Teaching pupils to carry on class routines.
22. Teaching pupils to obtain criticism from teacher and other pupils.
23. Teaching pupils to obtain help from teacher and other pupils.
24. Explaining regulations regarding pupils' conduct on school premises.
25. Explaining regulations with regard to pupils' routine school activities.

26. Explaining regulations with regard to personal conduct in classroom.
27. Explaining regulations with regard to health and cleanliness.

Developing pupils' interest and attention in the performance of the following activities:

28. Observing school regulations.
29. Complying with social conventions.
30. Acting courteously toward others.
31. Respecting desires and welfare of others.
32. Meeting personal obligations as a member of the school.
33. Developing personal traits and habits.
34. Showing appreciation of teacher.
35. Acting courteously toward teachers.
36. Conforming to school customs.
37. Attending to routine school activities.
38. Moving about the building in an orderly fashion.
39. Engaging in opening exercises and special programs.
40. Conferring with teachers.
41. Conferring with teacher concerning work.
42. Filling out blanks and forms.
43. Visiting laboratories, libraries, lavatories, and other rooms.
44. Engaging in recess and lunch-hour activities.
45. Making up work out of school hours.
46. Making excursions to points of interest.
47. Refraining from interfering with other pupils' work.
48. Conforming to classroom regulations.
49. Taking part in routine class activities.
50. Responding to teacher's directions and suggestions.
51. Attending to class work.
52. Rendering service to teachers.
53. Conferring with other pupils.
54. Attending to personal proprieties.
55. Selecting, adjusting, and caring for personal property.
56. Caring for other pupils' belongings.
57. Caring for school property.

Giving instruction to pupils in:

58. Observing school regulations.
59. Complying with social conventions.
60. Acting courteously toward others.
61. Respecting desires and welfare of others.
62. Meeting personal obligations as a member of the school.
63. Showing appreciation to teachers.
64. Acting courteously toward teacher.
65. Conforming to school traditions.
66. Attending to routine school activities.
67. Moving about the building in an orderly fashion.
68. Engaging in opening exercises and special programs.
69. Conferring with teachers.

70. Conferring with teacher concerning work.
71. Filling out blanks and forms.
72. Visiting laboratories, libraries, lavatories, and other rooms.
73. Engaging in recess and lunch-hour activities.
74. Making up work out of school hours.
75. Making excursions to points of interest.
76. Refraining from interfering with other pupils' work.
77. Conforming to classroom regulations.
78. Taking part in routine class activities.
79. Attending to class work.
80. Responding to teacher's directions and suggestions.
81. Rendering services to teachers.
82. Conferring with other pupils.
83. Attending to personal proprieties.
84. Selecting, adjusting, and caring for personal property.
85. Caring for school property.

Enforcing instructions to pupils concerning such matters as:

86. Complying with social conventions.
87. Acting courteously toward others.
88. Showing appreciation to teacher.
89. Conforming to school traditions.
90. Attending to routine school activities.
91. Moving about the building in an orderly fashion.
92. Conferring with teacher.
93. Conferring with teacher regarding work.
94. Filling out blanks and forms.
95. Visiting laboratories, libraries, lavatories, and other rooms.
96. Engaging in recess and lunch-hour activities.
97. Making up work out of school hours.
98. Making excursions to points of interest.
99. Taking part in routine class activities.
100. Rendering service to teachers.
101. Conferring with other pupils.
102. Attending to personal proprieties.
103. Selecting, adjusting, and caring for personal property.
104. Caring for other pupils' belongings.

Inspecting and evaluating pupils' behavior in:

105. Observing school regulations.
106. Complying with social conventions.
107. Acting courteously toward others.
108. Respecting the desires and welfare of others.
109. Showing appreciation to teacher.
110. Acting courteously toward teacher.
111. Conforming to school traditions.
112. Attending to routine school activities.
113. Moving about the building in an orderly fashion.
114. Engaging in opening exercises and special programs.
115. Conferring with teachers.

116. Conferring with teacher concerning work.
117. Filling out blanks and forms.
118. Visiting laboratories, libraries, lavatories, and other rooms.
119. Engaging in recess and lunch-hour activities.
120. Making up work out of school hours.
121. Making excursions to points of interest.
122. Refraining from interfering with other pupils' work.
123. Conforming to classroom regulations.
124. Taking part in routine class activities.
125. Responding to teacher's directions and suggestions.
126. Rendering services to teachers.
127. Conferring with other pupils.
128. Attending to personal proprieties.
129. Selecting, adjusting, and caring for personal property.
130. Caring for other pupils' belongings.
131. Opening school session.
132. Excusing pupils.
133. Dismissing pupils.
134. Detaining pupils.
135. Sending pupils on errands.
136. Acting as custodian of pupils' belongings.
137. Collecting materials.
138. Inducting new pupils.
139. Making announcements.
140. Providing facilities and materials.
141. Performing manual services.
142. Conducting other pupil activities.
143. Routine school activities.
144. Recess, lunch-room activities.

Activities involving informal contacts with pupils:

145. Establishing cordial relations with pupils.
146. Assisting individual pupils.
147. Participating in activities with pupils.
148. Providing facilities for pupils' activities outside of school.
149. Securing pupil participation in informal contacts.

Activities involved in supervising play:

150. Obtaining information about pupils.
151. Participating in play activities with pupils.

Activities involved in supervising athletics:

152. Establishing cordial relations with pupils.
153. Participating in athletic sports with pupils.
154. Securing pupil participation in athletics.
155. Selecting participants for teams.
156. Rewarding good work in athletics.
157. Scheduling athletic activities.

Activities involved in supervising social activities:

158. Establishing cordial relations with pupils.
159. Assisting individual pupils.
160. Participating in social activities with pupils.
161. Securing pupils' participation in social activities.
162. Rewarding service in social activities.
163. Managing funds for social activities.
164. Acting as official at social activities.

Activities involved in supervising musical and dramatic organizations:

165. Establishing cordial relations with pupils.
166. Rewarding good work in music and dramatics.
167. Managing funds.
168. Scheduling musical and dramatic activities.

Activities involved in supervising pupils' publications:

169. Establishing cordial relations with pupils.
170. Obtaining information about pupils.
171. Assisting individual pupils.
172. Rewarding good work in connection with publications.

Activities involved in supervising pupils' forensic activities:

173. Establishing cordial relations with pupils.
174. Obtaining information about pupils' abilities.
175. Participating in forensic activities.
176. Providing facilities for forensic activities.
177. Securing pupil participation in forensic activities.
178. Selecting pupil participants.
179. Rewarding good work.
180. Managing funds.
181. Acting as official.
182. Scheduling activities.

Activities involved in supervising pupils' excursions:

183. Establishing cordial relations with pupils.
184. Participating in excursions.
185. Providing facilities for excursions.
186. Selecting points to which to make excursions.
187. Managing funds needed in making excursions.
188. Scheduling excursions.

Activities involved in supervising pupils' assemblies:

189. Establishing cordial relations with pupils.
190. Selecting participants in assemblies.
191. Rewarding good work performed by pupils in assemblies.
192. Managing funds for assemblies.
193. Scheduling assemblies.

Activities involved in supervising drives and campaigns:

194. Establishing cordial relations with pupils.
195. Participating in campaigns.

196. Providing school facilities.
197. Securing pupil participation in campaigns.
198. Selecting pupil participants in campaigns.
199. Rewarding good work in campaigns and drives.
200. Managing funds.
201. Acting as official.
202. Scheduling campaigns and drives.

Activities involved in supervising other pupil organizations:

203. Establishing cordial relations with pupils.
204. Obtaining information about pupils.
205. Assisting individual pupils.
206. Participating in other pupil organizations.
207. Providing facilities for the establishment and maintenance of other organizations.
208. Securing participation of pupils in other organizations.
209. Selecting participants.
210. Rewarding good work.
211. Managing funds.
212. Acting as official.
213. Scheduling.

Activities involved in supervising special programs:

214. Establishing cordial relations with pupils.
215. Obtaining information about pupils' abilities.
216. Assisting individual pupils.
217. Participating in special programs with pupils.
218. Providing facilities.
219. Securing pupil participation.
220. Selecting participants.
221. Rewarding good work.
222. Managing funds.
223. Acting as official.
224. Scheduling.

Giving advice and information to:

225. Occupational groups.
226. Social organizations.
227. Members of community at large.

Giving assistance to:

228. Occupational groups.
229. Social organizations.
230. Members of community at large.

Obtaining advice and information from:

231. Occupational groups.
232. Social organizations.
233. Members of community at large.

Obtaining assistance from:

234. Parents.
235. Occupational groups.
236. Social organizations.
237. Members of community at large.

Establishing cordial relations with:

238. Occupational groups.
239. Social organizations.
240. Members of community at large.

Attending to school visits of:

241. Occupational groups.
242. Social organizations.
243. Members of community at large.

Acting as mediator between:

244. Occupational groups.
245. Social organizations.
246. Members of community at large.

Participating in meetings of:

247. Occupational groups.
248. Social organizations.
249. Community at large.

Making professional contacts:

250. Joining and paying dues to professional, social, cultural, and recreational organizations.
251. Serving in official capacity.
252. Performing routine duties of membership.
253. Recruiting members for organization.
254. Developing morale of organization.
255. Seeking more attractive positions.

Providing for personal welfare:

256. Taking out insurance.
257. Supplementing salary from outside sources.
258. Traveling.
259. Securing necessary space for class activities.

Activities in connection with school equipment and supplies:

260. Ordering supplies.
261. Following up orders of supplies.
262. Borrowing supplies.
263. Arranging supplies for use.
264. Distributing supplies to pupils.
265. Maintaining supplies and equipment in condition for use.
266. Cleaning supplies and equipment.
267. Making records and reports concerning supplies and equipment.
268. Managing funds for supplies and equipment.

In conclusion, one might say that—

1. There are some activities and abilities which should be acquired and performed in student teaching to the end that they approach mastery.

2. There are other activities and abilities which should be acquired and performed during student teaching, but activities which will require some considerable attention, to result in mastery, after the teacher arrives in a teaching situation.

3. There are other activities and abilities which must be learned in service. The background for these must have been built up, however, in the courses preparatory to student teaching.